## STIC-Biotech/ChemLib

From:

Spector, Lorraine

Wednesday, September 04, 2002 9:35 AM STIC-Biotech/ChemLib

Sent: To: Subject:

Serial No. 09/912436

Please search SEQ ID NO:5 and 6

Point of Contact: Mona Smith

Technical Information Specialist

CM1 6A01

Tel: 308-3278

-pending

-issued

-commercial

I am interested in hits that are slightly LESS than 100% identical-please print results down to 90% identity, at least.

Also particularly interested in mutations at nucleotides 286-294 of SEQ ID NO:5, if there's any way to search for that specifically.

Thanks.

Lorraine Spector 703-308-1793

U.S. Patent and Trademark Office

Art Unit 1646

lorraine.spector@uspto.gov

CM1-10B11

Searcher: M. Sm	เสเ
Phone:	
Location:	
Date Picked Up:9	15/02
Date Completed: 9	10/02
Searcher Prep/Review	N: <u>10</u>
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Online time:	10

TYPE OF S	EARCH:	
NA Sequences:		
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Structures:		
Bibliographic:		
Litigation:		
Full text:		
Patent Family: _		
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VENDOR/COST (where applic.)
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Patent No. 521	Patent No. 519	Sequence 2, P	Sequence 2, Appl	Patent No. 5219739	Patent No. 5194590	11	Sequence 3, A	Patent No. 521	,	4,	9,	Sequence 7, Appl	Patent No. 5240848		Sequence 3, A	Patent No. 5240848	Patent No. 533
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/609,443B FILING DATE: 01-MAR-1996 CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
PRIOR APPLICATION NUMBER: US 08/469,427
FILING DATE: 06-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION DATA: US 08/469,427
FILING DATE: 06-JUN-1995
PRIOR APPLICATION DATA:
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HYPOTHETICAL: NO ORIGINAL SOURCE: TISSUE TYPE: 6
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REFERENCE/DOCKET NUMBER: 10
TELECOMMUNICATION INFORMATION:
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FILING DATE: 06-DEC-1995
ATTORNEY/AGENT INFORMATION:
NAME: EVANS, JOSEPH D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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                                               MOLECULE TYPE:
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                                                                                 STRANDEDNESS:
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US-08-569-063C-5
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                            TELEFAX: (202) 628-884
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 188 amino acid
            HYPOTHETICAL: NO ORIGINAL SOURCE: TISSUE TYPE: a
                                                                                                                                                                                                                                                                                                                            FILING DATE: 06-DEC-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/469,427
FILING DATE: 06-JUN-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: PAJUSOLA, KATTI
APPLICANT: PAJUSOLA, KATTI
TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B
TITLE OF INVENTION: DNA CODING THEREFOR
NUMBER OF SEQUENCES: 23
                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION: NAME: EVANS, Joseph D
                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Rel
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                          MOLECULE TYPE:
                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                             TOPOLOGY:
                                                                                           STRANDEDNESS:
                                                                                                            LENGTH: 188 amino acids TYPE: amino acid
                                                                                                                                                                                            TELEPHONE:
                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                NAME: EVANS, Joseph D
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 08/397,651 FILING DATE: 01-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 MGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIQYPSSQLGEMSLEEHS
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1200 G Street,
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ALITALO, Kari
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               adult mouse heart
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06-DEC-1995
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Pred. No. 1.5e-68;
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Query Match
Best Local Similarity

89.6%;

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644; DB 2; No. 1.5e-68;

Length 188;

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Matches

121;

Conservative

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Mismatches

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MSPILRRLLLVALLQLARTQAPVSQFDGPSHQKKVVPWIDVYARATCQPREVVVPLSMEL 60
MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHS 120

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US-08-609-443B-13
                                                                              US-08-609-443B-13
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Best Local Similarity 88.3
Matches 120; Conservative
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                                                                                                                                                                                                      TELEFAX: (202) 628-88 INFORMATION FOR SEQ ID NO:
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APPLICANT:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                           MOLECULE TYPE:
ORIGINAL SOURCE:
TISSUE TYPE:
                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 207 amino acids
                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/569,063
FILING DATE: 06-DEC-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 08 FILING DATE: 01-MAR-1995 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/609,443B
                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION: TELEPHONE: (202) 628-8800
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PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
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                                                                                                                                        TYPE: amino acid TOPOLOGY: linear
                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                    NAME: EVANS, Joseph D
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/0: FILING DATE: 01-MAR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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OLOFSSON, Birgitta
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             89.2%;
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Score 641; DB 2; pred. No. 3.7e-68; 6; Mismatches 10;
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                             Length 207;
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; MOLECULE TYPE: p:
; ORIGINAL SOURCE:
; TISSUE TYPE: mc
US-08-569-063C-13
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                                        Query Match
Best Local Similarity
Matches 120; Conser
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                                                                                                                                                                                                                                                             TELEFAX: (202) 628-88 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: VASCULAR THEREFOR TITLE OF INVENTION: DNA CODING THEREFOR
                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS: LENGTH: 207 amino acids
                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 01-MAR-1995
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
FILING DATE: 06-DEC-
PRIOR APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
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121 QCECRPKKKESAVKPD 136
                                                                                                                                                                                           TYPE: ami
TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 08/469,427 FILING DATE: 06-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0,
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REGISTRATION NUMBER: :
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1 MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEL
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                                                                                                                                                                                                          amino acid
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VENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND
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                                               Conservative
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                                                            89.2%;
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                                               Score 641; DB 2;
Pred. No. 3.7e-68;
6; Mismatches 10;
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                                                                           Length 207;
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PAPPLICANT: ETIKSSON, Ulf
APPLICANT: Olofsson, Birgitta
APPLICANT: Olofsson, Birgitta
APPLICANT: Alitalo, Kari
APPLICANT: Pajusola, Katri
APPLICANT: Pajusola, Katri
TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B
TITLE OF INVENTION: DNA CODING THEREFOR

TITLE OF SEQUENCES: 17
                                                                                                                                                                                             Best Local Similarity Matches 121; Conserv
                                                                                                                                                                                                                               Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 08/397
FILING DATE: 01-MAR-1995
ATTORNEY/AGENT INFORMATION:
NAME: EVANS, JOSEPH D
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 4197
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: (202) 628-88
                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear MOLECULE TYPE: pro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/469,427A
FILING DATE: 06-JUN-1995
                                                                                                                                                                                                                                                                                                   ORIGINAL SOURCE:
TISSUE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 195 amino acids
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MEDIUM TYPE: Floppy disk
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                    114 MSLEEHSQCECRPKKKDSAVKPD 136
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                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: amino acid
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                                                                                                                                        1 MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEE 60
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                                                                        MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRM------QILMIRYPSSQLGE 113
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                                                                                                                          MSPLLRRLLLVALLQLARTQAPVSQFDGPSHQKKVVPWIDVYARATCQPREVVVPLSMEL
                                                      MGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQVPGPMGQILMIQYPSSQLGE
 7, Application US/08469427A
5. 5607918
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1200 G Street, N.W., Suite 700
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                                                                                                                                                                                                             Score 630.5;
Pred. No. 6e
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GENERAL INFORMATION:
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                                                                                                                                                                            Matches
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TELEFAX: (202) 628-8844
INFORMATION FOR SEQ ID NO: 7:
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APPLICANT:
APPLICANT:
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HYPOTHETICAL: N
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 435
PRIOR APPLICATION UNMBER: US 08/397,651
FILING DATE: 01-MAR-1995
PRIOR APPLICATION DATA:
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OPERATING SYSTEM: PC-DOS/MS-DOS
OPETWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/609,443B
                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 195 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 08/469,427
FILING DATE: 06-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 08/569,063
FILING DATE: 06-DEC-1995
ATTORNEY/RGENT INFORMATION:
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
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114 MSLEEHSQCECRPKKKDSAVKPD 136
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REGISTRATION NUMBER: 26
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                       Match 87.7%;
Local Similarity 84.6%;
                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                        TYPE: amino acid
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                                                                                                                           1 MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEL 60
                                                                                                                                                                                                                                                                                  ISSUE TYPE:
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                                                      MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRM-------QILMIRYPPSSQLGE 113
                                    MGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQVPGPMGQILMIQYPSSQLGE 120
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                                                                                                                                                                           Score 630.5;
Pred. No. 6e-6
5; Mismatches
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                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                    Matches 121;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (202) 628-880 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: ERIKSSON, U
APPLICANT: OLOFSSON, B
APPLICANT: ALITALO, Ka
APPLICANT: PAJUSOLA, K
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
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APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
ATTORNEY/AGENT INFORMATION:
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CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: protein HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
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NAME: EVANS, JOSEPH D
REGISTRATION NUMBER: 26,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: FILING DATE: 06-JU
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FILING DATE: 06-DEC-1995
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                        TYPE: amino acid
STRANDEDNESS: single
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STREET: 1200 G Street,
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                                                                                                                                        1 MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEL 60
                                                                          MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRM-----QILMIRYPSSQLGE 113
                                                                                                                        MSPLLRRLLLVALLQLARTQAPVSQFDGPSHQKKVVPWIDVYARATCQPREVVVPLSMEL 60
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                                                            MGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQVPGPMGQILMIQYPSSQLGE
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ALITALO, Kari
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84.6%;
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                                                                                                                                                                                  Score 630.5; DB 2;
Pred. No. 6e-67;
5; Mismatches 10;
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US-08-609-443B-9
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sequence 9, Application US/08609443B Patent No. 5840693
                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                        Query Match
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INFORMATION FOR SEQ ID NO: 93
SEQUENCE CHARACTERISTICS:
LENGTH: 133 amino acids
TYPE: amino acid
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
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TITLE OF INVENTION: DN
NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
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STATE: 20005
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                                                                                                                      121 QCECRPKKK 129
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REGISTRATION NUMBER: 26
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: FILING DATE: 06-JUN CLASSIFICATION: 435
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TOPOLOGY: lir
                                                                                                                                                                                  61 MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHS 120
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                                                                                                                                                                                                                                                                                           Match 85.1%;
Local Similarity 89.1%;
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                                                                                        QCECRPKKK 129
                                                                                                                                                     MGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIQYPSSQLGEMSLEEHS
                                                                                                                                                                                                                  MSPLLRRLLLVALLQLARTQAPVSQFDGPSHQKKVVPWIDVYARATCQPREVVVPLSMEL
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Alitalo, Kari
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                                                                                                                                                                                                                                                                             Conservative
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DNA CODING THEREFOR
17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Katri
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                                                                                                                                                                                                                                                                                           Score 612; DB 1; Pred. No. 5.7e-65;
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Suite 700
                                                                                                                                                                                                                                                                           Mismatches
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                                                                                                                                                                                                                                                                                                          Length 133;
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GENERAL INFORMATION:

APPLICANT: APPLICANT: APPLICANT:

ALITALO, Kari

Birgitta

ERIKSSON, Ulf

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                                                                                                                                                      RESULT
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                                                                                                  Sequence 9, Application US/08569063C Patent No. 5928939
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                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: (202) 628-8844
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 06
FILING DATE: 01-MAR-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 06
FILING DATE: 06-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 435
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 08/397,651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: 10
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 628-8800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 06-DEC-1995
ATTORNEY/AGENT INFORMATION:
NAME: EVANS, JOSEPH D
REGISTRATION NUMBER: 26,3
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APPLICATION NUMBER: US 08/569,063
FILING DATE: 06-DEC-1995
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MEDIUM TYPE: Floppy
                                                                APPLICANT:
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TITLE OF INVENTION: VASCULAR ENDOTHELIAN
TITLE OF INVENTION: DNA CODING THEREFOR
 CITLE OF
               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                     121
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                                                                                                                                                                                                                                                                                                                                                                                                                      Match 85.1%;
Local Similarity 89.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/0 FILING DATE: 01-MAR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CITY: Washington
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                                                                                                                                                                                                     QCECRPKKK 129
                                                                                                                                                                                                                                       QCECRPKKK 129
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 INVENTION:
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                 PAJUSOLA,
                             OLOFSSON, Bir
ALITALO, Kari
                                                               ERIKSSON, Ulf
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VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND
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                                               Birgitta
                 Katri
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Pred. No. 5.7e-65;
4; Mismatches 10
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                                                                                                                                                                                          Sequence 2, Patent No.
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Best Local Similarity
                                                                                                                                                                             GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                              APPLICANT: Eriksson, Ulf
APPLICANT: Olofsson, Birgitta
APPLICANT: Alitalo, Kari
APPLICANT: Pajusola, Katri
TITLE OF INVENTION: VASCULAR ENDOTHELIAL
TITLE OF INVENTION: DIA CODING THEREFOR
NUMBER OF SEQUENCES: 17
                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 10
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 628-8800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08/569,063C FILING DATE: 06-DEC-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/469,427
FILING DATE: 06-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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NAME: EVANS, Joseph D
REGISTRATION NUMBER: 26,
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APPLICATION NUMBER: US 0
FILING DATE: 01-MAR-1995
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STREET:
CITY: V
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                                                                                                                                                                                              2, Application US/08469427A
5. 5607918
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amino acid
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Washington
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               1200 G Street, N.W.,
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                               Evenson,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        85.1%;
             McKeown, Edwards & Lenahan et, N.W., Suite 700
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Pred. No. 5.7e-65;
4; Mismatches 10
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                                                                                               GROWTH FACTOR-B
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RESULT 13
US-08-609-443B-2
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Best Local (
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                              GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE: F
HYPOTHETICAL: NO
ORIGINAL SOURCE:
TISSUE TYPE: II
                                                                                                                                                                                                                                                                                     APPLICANT: ERIKSSON, Ulf
APPLICANT: OLOFSSON, Bird
APPLICANT: ALITALO, Kari
APPLICANT: PAJUSOLA, Kati
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Evans, Joseph D
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 41
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
ATTORNEY/AGENT INFORMATION:
NAME: Evans, Joseph D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, V.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/469,427A
FILING DATE: 06-JUN-1995
CLASSIFICATION: 435
                COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                        TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND TITLE OF INVENTION: DNA CODING THEREFOR NUMBER OF SEQUENCES: 57
                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
les 89; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: (202) 628-8800
                                                                                                                                  COUNTRY:
                                                                                                                                                                                      ADDRESSEE: Evenson, McKeown, STREET: 1200 G Street, N.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY:
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   APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                              INFORMATION:
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5. 5840693
                                                                                                                      20005
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91.8%;
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US/08/609,443B
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Pred. No. 1.4e-50;
3; Mismatches 5
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                                                                                                                                                                                                      Lenahan, P.L.L.C
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RESULT 14
US-08-569-063C-2
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Best Local Similarity
Matches 89; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 2, Applic Patent No. 5928939
                                                                                                                                                                                                                                                                                                                    APPLICANT: ERIKSSON, Ulf
APPLICANT: OLOFSSON, Birgitta
APPLICANT: ALITALO, Karri
APPLICANT: PAJUSOLA, Katri
TITLE OF INVENTION: VASCULAR EN
TITLE OF INVENTION: DNA CODING
                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: (202) 628-8844 INFORMATION FOR SEQ ID NO:
                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
NODITOTAMINALE: US/08/569.063C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 08/569,063
FILING DATE: 06-DEC-1995
ATTORNEY/AGENT INFORMATION:
NAME: EVANS, JOSEPH D
REGISTRATION NUMBER: 26,269
REGISTRATION NUMBER: 106/4/110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HYPOTHETICAL: N
ORIGINAL SOURCE:
TISSUE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: pr
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TELECOMMUNICATION INFORMATION:
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APPLICATION NUMBER: US 08/469,427
FILING DATE: 06-JUN-1995
PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                            STREET: 1200 G S: CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93 GQHQVRMQILMIRYPSSQLGEMSLEEHSQCECRPKKK 129
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STRANDEDNESS: sir
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                                 APPLICATION NUMBER: US/08/569,063C FILING DATE: 06-DEC-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62 GQHQVRMQILMIQYPSSQLGEMSLEEHSQCECRPKKK 98
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                                                                                                                                                                                            COUNTRY:
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91.8%;
                                                                                                                                                                                                                                                                                                     VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND DNA CODING THEREFOR 23
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 US 08/469,427
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Pred. No. 1.4e-50;
3; Mismatches 5;
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Suite 700
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Best Local Similarity
                                                                                                                                                                        ZIP: 07065-0900

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOSTWARE: Microsoft Word 6

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/586,039

FILING DATE: 16-JAN-1996
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 628-8800
TELEFAX: (202) 628-8844
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: pro
HYPOTHETICAL: NO
ORIGINAL SOURCE:
TISSUE TYPE: mou
                                  ATTORNEY/AGENT INFORMATION: NAME: Hand, J. Mark
                                                                                                                                           PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Bayne, Marvin L. APPLICANT: Thomas Jr., Kenn
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NAME: EVANS, Joseph D
              REGISTRATION NUMBER: 36,545
                                                                     APPLICATION NUMBER: 07/6 FILING DATE: 28-MAR-1991
                                                                                                      APPLICATION NUMBER: 08/1 FILING DATE: 20-SEP-1993
                                                                                                                                                             CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                       COUNTRY:
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REGISTRATION NUMBER:
REFERENCE/DOCKET NUMBER:
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126 E. Lincoln Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Thomas Jr., Kenneth A.

VASCULAR ENDOTHELIAL CELL GROWTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    102 amino acids
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91.8%;
                                                                                       07/676,436
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Pred. No. 1.4e-50;
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US-08-586-039B-31
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TELEFAX: (908) 594-4720
INFORMATION FOR SEQ ID NO: 33:
SEQUENCE CHARACTERISTICS:
LENGTH: 146 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patent No.
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Best Local
                                                                               TELEFAX: (908) 594-47 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                           CLASSIFICATION:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Microsoft Word 6
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                               TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Bayne, Marvin L.
APPLICANT: Thomas Jr., Kenneth A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: 11
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            132 KK--DRTKPE 139
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                                                                                                                                              NAME: Hand, J. Mark
REGISTRATION NUMBER: 36,545
REFERENCE/DOCKET NUMBER: 18
                                                                                                                                                                                                             APPLICATION NUMBER: 08/1: FILING DATE: 20-SEP-1993 APPLICATION NUMBER: 07/6 FILING DATE: 28-MAR-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
ZIP: 07065-0900
                                TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                STRANDEDNESS:
                                                                                                              TELEPHONE:
                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER:
TOPOLOGY:
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                                             LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       68 LVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP 126
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KKKDSAVKPD 136
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5, 6140073
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New Jersey
                                             190 amino acids
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                                                                                                (908)
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                                                                                                                                                                                                             JMBER: 07/676,436
28-MAR-1991
               single
                                                                                              594-4720
                                                                                                                 594-3905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUBUNIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     37.5%; Score 269.5; DB 43.8%; Pred. No. 2e-24;
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                                                                                                                                                                                                                                                              08/124,259
                                                                                                                                                                                                                                                                                                                            US/08/586,039B
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                                                                                                                                                18361DA
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                                                                                                         US-08-586-039B-35
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Best Local Similarity
Matches 57; Conserv
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                                                                                                                                                                                                                                                          APPLICATION NUMBER: 08/124,259
FILING DATE: 20-SEP-1993
APPLICATION NUMBER: 07/676,436
FILING DATE: 28-MAR-1991
ATTORNEY/AGENT INFORMATION:
NAME: Hand, J. Mark
REGISTRATION NUMBER: 36,545
REFERENCE/DOCKET NUMBER: 18361DA
TELECOMMUNICATION INFORMATION:
TELEPHONE: (908) 594-3905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                              TELEFAX: (908) 594-47 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Microsoft Word 6
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Bayne, Marvin L.
APPLICANT: Thomas Jr., Kenneth A.
                                                                                                                      MOLECULE TYPE:
                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: FILING DATE: 16-JAN CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                    Local Similarity hes 57; Conserva
                                                                                                                                         TYPE: amino acid
STRANDEDNESS: sir
TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
ZIP: 07065-0900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET:
                                                                                                                                                                                              LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
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: New Jersey
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126 E. Lincoln Avenue
                                                                                                                                                                                        214 amino acids
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                    Conservative
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43.8%;
                37.5%; Score 269.5; DB 4; 43.8%; Pred. No. 3.3e-24; tive 21; Mismatches 47;
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Pred. No. 2.8e-24;
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                                                   Length 214;
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5332671
; PATENT NO. 5332671
; APPLICANT: FERRARA, NAPOLEONE; LEUNG, DAVID W.H.
; APPLICANT: FERRARA, NAPOLEONE; LEUNG, DAVID W.H.
; APPLICANT: FERRARA, NAPOLEONE; LEUNG, DAVID W.H.
; CONTINUENTION DATA:
; CURRENT APPLICATION DATA:
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US-08-569-063C-20
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APPLICATION UNMBER: 369,424
FILING DATE: 21-JUN-1989
APPLICATION UNMBER: 351,117
FILING DATE: 12-MAY-1989
SEQ ID NO:3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 55; Conserv
                                                                                                                                                                                                                                                                                                                                   Sequence 20, Application US/08569063C Patent No. 5928939
                                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: ERIKSSON, Ulf
APPLICANT: OLOFSSON, Birgitta
APPLICANT: ALITALO, Kari
APPLICANT: PAJUSOLA, Katri
                             COUNTRY: USA
ZIP: 20005
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                        NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                          TITLE OF INVENTION:
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FILING DATE: 04-AUG-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              68 LVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP 126
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                                                                                                                                          STREET:
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                                                                                                                                                         ADDRESSEE:
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                                                                                                                    Washington
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1200 G Street,
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45.18;
                                                                                                                                                                                            VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND DNA CODING THEREFOR 23
                                                                                                                                       McKeown,
et, N.W.,
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Pred. No. 6.4e-24;
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                                                                                                                                         Edwards & Lenahan, P.L.L.C Suite 700
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PCT-US96-09001-10
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Best Local Similarity
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INFORMATION FOR SEQ ID NO: 20:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                 APPLICANT: HU, ET AL.

TITLE OF INVENTION: Human Vascular EndothelialGrowth Factor 2
NUMBER OF SEQUENCES: 10
CORRESPONDENCE ADDRESS:
ADDRESSEE: CARELLA, BYRNE, BAIN, GILFILLAN,
ADDRESSEE: CECCHI, STEWART & OLSTEIN
STREET: 6 BECKER FARM ROAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: EVANS, JOSEPH D
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 100
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 628-8800
TELEPHONE: (202) 628-8800
                                                                                                                                            OPERATING SYSTEM: MS-DOS
SOFTWARE: WORD PERFECT 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                      PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION: NAME: EVANS, Joseph D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 06-JUN-
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 06-DEC-PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  132 KK--DRTKPE 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   127 KKKDSAVKPD 136
                               APPLICATION NUMBER: 08 FILING DATE: 6 JUN 95
               FILING DATE: 6 JUN APPLICATION NUMBER:
                                                                                           CLASSIFICATION:
                                                                                                                                                                                                          COMPUTER:
                                                                                                                                                                                                                                                                              COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12 LALLLYLHHAKWSQAAPTTEGEQKSHEVIKFMDVYQRSYCRPIETLVDIFQEYPDEIEYI 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US 08/397,651 FILING DATE: 01-MAR-1995
                                                                                                             FILING DATE:
                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        72 EKPSCVPLMRCAGCCNDEALECVPTSESNITMQIMRIKPHQSQHIGEMSFLQHSRCECRP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           68 LVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10 LAALLQLAPAQAPVSQPDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQ 67
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FILING DATE:
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NEW JERSEY
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                                                                                                                                                                                                                          INCH DISKETTE
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42.3%; Pred. No. 1.1e-23;
htive 23; Mismatches 47;
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             08/207,550
                                                  08/465,968
                                                                                                                            PCT/US96/09001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence 1, Application US/08807992B
Patent No. 6022541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best
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                                                               TELEPHONE: (978) 525-: INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: 201-994-1744 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                SOFTWARE: WordPerfect version 5.1 CURRENT APPLICATION DATA:
                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: David Prastker, Esq.
REGISTRATION NUMBER: 29,693
REFERENCE/DOCKET NUMBER: BI
                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.50 inch,
                                             SEQUENCE CHARACTERISTICS
                                                                                                TELECOMMUNICATION INFORMATION:
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LENGTH: 231 AMINO ACIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION: TELEPHONE: 201-994-1700
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                                                                                                                                                                                 FILING DATE: Ma
                                                                                                                                                                                                                                                                   COMPUTER: IBM PS, OPERATING SYSTEM:
STRANDEDNESS:
                                                                                                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                         STATE:
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nes 54; Conserv
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TOPOLOGY: LINEAR
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REGISTRATION NUMBER: 36,134
REFERENCE/DOCKET NUMBER: 325800-288
                             LENGTH:
                                                                                                                                                                                                                                                                                                                                        01930
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Magnolia
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            amino acid
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                             147 amino acids
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                                                                                (978) 525-3794
                                                                                                                                                                                                                                                                                                                                                                                                                         David
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Harold F
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Pred. No. 1.4
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RESULT 23
US-08-567-200A-2
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; TYPE: PRT
; ORGANISM: Homo Sapiens
US-09-392-932-1
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Aguary, Agrient No. 60204,,
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Keyt, Bruce A.
APPLICANT: Nguyen, Francis H.
APPLICANT: Nguyen, Apoleone
APPLICANT: Ferrara, Napoleone
APPLICANT: Formation: Variants of Vascular Endothelial Cell
TTMIR. OF INVENTION: Growth Factor, Their Uses, and Processes for their
                                                                                                                                                                             Sequence 2, Applic Patent No. 6020473
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Best Local S
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Best Local Similarity
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CURRENT FILING DATE: 1999-09-09
EARLIER APPLICATION NUMBER: 60/099,694
EARLIER FILING DATE: 1998-09-09
NUMBER OF SEQ ID NOS: 11
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Schreiner, George F.
APPLICANT: Johnson, Richard J.
TITLE OF INVENTION: METHODS OF TREATING HYPERTENSION AND
TITLE OF INVENTION: COMPOSITIONS FOR USE THEREIN
FILE REFERENCE: SCIOS.002A
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                                                                                                                                                                                                                                                                                                                                                                         67 QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR 125
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Pred. No. 9.2e-24;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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US-08-567-200A-2
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US-08-807-992B-2
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Patent No. 6022541
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                                                                                                                                                                                                  TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
UNMBER OF SEQUENCES:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                   ZIP: 01930
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                            APPLICANT: APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: linear MOLECULE TYPE: protein
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LENGTH: 191 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 781-1989
TELEFAX: (415) 398-3249
TELEX: 910 277299
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ADDRESSEE: Flehr, Hohbach, Test,
STREET: Four Embarcadero Center,
CITY: San Francisco
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                            STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                132 PKK 134
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COMPUTER: IBM PS/1
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12 LALLLYLHHAKWSQAAPMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEY
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                              MEDIUM TYPE: Diskette, 3.50 inch, 1.40 Mb storage
                                                                                         COUNTRY:
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Magnolia
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                                                                                                          Massachusetts
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                                                                                                                                               David Prashker,
O. Box 5387
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43.9%;
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 MS DOS
                                                                                                                                                                                                                    vessel
                                                                                                                                                                                                                                   Immunological preparation for concurrent specific binding to spatially exposed regions of vascular permeability factor bound in-vivo to a tumor associated blo
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Suite 3400
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US-08-691-794-2
; Sequence 2, Applica
; Patent No. 6057428
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NAME: David prasiker, Esq.
REGISTRATION NUMBER: 29,693
REFERENCE/DOCKET NUMBER: BI:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION TOTAL 525,7544
                                          PRIOR APPLICATION DATA:

PRIOR APPLICATION NUMBER: US 60/002,827
                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: Variants of Vascular Endothelial Cell
TITLE OF INVENTION: Growth Factor, Their Uses, and Processes for their
TITLE OF INVENTION: Production
NUMBER OF SEQUENCES: 45
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LENGTH: 191 amino acids
                                                                                                                                          SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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                 PRIOR APPLICATION DATA:
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                                                                                                       APPLICATION NUMBER: US/01
FILING DATE: 02-AUG-1996
                                                                                                                                                                                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity 43.9 hes 54; Conservative
                                   APPLICATION NUMBER: US 6
FILING DATE: 25-AUG-1995
                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: FILING DATE: March CLASSIFICATION: 42
                                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       72 IFKPSCVPLMRCGGCCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECR 131
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STRANDEDNESS: si
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                                                                                                                                                                                                                                                                                                                    San Francisco
                                                                                                                                                                                                                                                                                                  California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application US/08691794
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Cunningham, Brian C.
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 NUMBER:
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43.9%; Pred. No. 1.3e-23;
tive 21; Mismatches 44
                                                                                                                              US/08/691,794
US 08/567,200
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Suite 3400
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RESULT 26
US-08-795-430-56
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SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENEES: 57
NUMBER OF SEQUENCES: 57
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
            PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/601,132
FILING DATE: 14-FEB-1996
PRIOR APPLICATION DATA:
                                                                                                                                       APPLICATION NUMBER: PCT/FI96/00427
FILING DATE: 01-AUG-1996
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                    PRIOR APPLICATION DATA:
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ATTORNEY/AGENT INFORMATION:
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                                                                                                 APPLICATION NUMBER: 08/671,573 FILING DATE: 28-JUN-1996
                                                                                                                                                                                                                           CLASSIFICATION: 435
                                                                                                                                                                                                                                              APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               72 IFKPSCVPLMRCGGCCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECR 131
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REGISTRATION NUMBER: 24,190
APPLICATION NUMBER:
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  08/585,895
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PRIOR APPLICATION DATA: APPLICATION NUMBER:

01-AUG-1995

08/510,133

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APPLICANT: Schreiner, George F.
APPLICANT: Schreiner, George F.
APPLICANT: Johnson, Richard J.
TITLE OF INVENTION: METHODS OF TREATING HYPERTENSION AND
TITLE OF INVENTION: COMPOSITIONS FOR USE THEREIN
FILE REFERENCE: SCIOS.002A
CUGRENT APPLICATION NUMBER: US/09/392,932
CUGRENT FILING DATE: 1999-09-09
EARLIER APPLICATION NUMBER: 60/09,694
EARLIER FILING DATE: 1998-09-09
NUMBER OF SEQ ID NOS: 11
                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 54; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 3
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Best Local
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 191
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REFERENCE/DOCKET NUMBER: 28
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6300
TELEPAX: 312/474-0448
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PRIOR APPLICATION DATA:
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   67
                                                                                                                                                  10 LAALLQLAPAQAPVSQPDAPG---HQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAK 66
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QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR 125
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Pred. No. 1.3e-23;
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RESULT 29
5240848-11
5240848
; Patent No. 5240848
; Patent Converse Encoding Human Vascular TITLE OF INVENTION: DNA SEQUENCES ENCODING HUMAN VASCULAR PERMEABILITY FACTOR HAVING 189 AMINO ACIDS
; NUMBER OF SEQUENCES: 11
; CURRENT APPLICATION DATA:
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532671-4
532671-4
; Patent No. 5332671
; APPLICANT: FERRARA, NAPOLEONE; LEUNG, DAVID W.H.
; TITLE OF INVENTION: PRODUCTION OF VASCULAR ENDOTHELIAL CELL
; GROWTH FACTOR AND DNA ENCODING SAME
; NUMBER OF SEQUENCES: 15
; CURRENT APPLICATION DATA:
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                                                                                                                                                      Query Match
Best Local (
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FILING DATE: 04-AUG-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 359,424
FILING DATE: 21-JUN-1989
APPLICATION NUMBER: 351,117
FILING DATE: 12-MAY-1989
                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/07/
FILING DATE: 10-JUL-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 274,061
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67 QLVPSCYTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR 125
                                                        12 LALLLYLHHAKWSQAAPMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEY 71
                                                                                              10 LAALLQLAPAQAPVSQPDAPG---HQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAK 66
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                                                                                                                                36.7%; Score 264; DB 6;
43.9%; Pred. No. 1.5e-23;
tive 21; Mismatches 44
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Pred. No. 1.3e-23;
21; Mismatches 44
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US-08-586-039B-49; Sequence 49, Application US/08586039B; Patent No. 6140073; GENERAL INFORMATION:
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Best Local Similarity
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Patent No. 6022541
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TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
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NAME: David prasiker, Esq.
REGISTRATION NUMBER: 29,693
REFERENCE/DOCKET NUMBER: BI
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: WordPerfect version 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM: MEDIUM TYPE: Diskette,
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LENGTH: 215 amino acids
 APPLICANT:
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STRANDEDNESS: si
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                                                                                                                         PKK 134
                                                                                                                                                                                    IFKPSCVPLMRCGGCCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECR 131
                                                                                                                                                                                                              QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR 125
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Bayne, Marvin L.
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Harold
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                                                                                                                                                                                                                                                                                                                       Score 264; DB 3; Length 215; Pred. No. 1.5e-23;
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RESULT 32
5240848-7
;Patent NO. 5240848
; PATENT NO. 5240848
; APPLICANT: KECK, PAMELA J.;CONNOLLY, DANIEL T.;FEDER, JOSEPH
; TITLE OF INVENTION: DNA SEQUENCES ENCODING HUMAN VASCULAR
;PERMEABILITY FACTOR HAVING 189 AMINO ACIDS
                                                                                                                                                                                                                                                                                                                                  QΥ
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                SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 08/124,259
FILING DATE: 20-SEP-1993
APPLICATION NUMBER: 07/676,436
FILING DATE: 28-MAR-1991
ATTORNEY/AGENT INFORMATION:
NAME: Hand, J. Mark
REGISTRATION NUMBER: 36,545
REFERENCE/DOCKET NUMBER: 18361DA
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (908) 594-47
INFORMATION FOR SEQ ID NO:
                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: 274,061
FILING DATE: 21-NOV-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 215 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Microsoft Word 6
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/9
                                                                                                                    NUMBER OF SEQUENCES: 11
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Thomas Jr., Kenneth A. True of invention: VASCULAR ENDOTHELIAL CELL GROWTH FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                   132 PKK 134
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                                                                                  APPLICATION NUMBER: US/
FILING DATE: 10-JUL-1989
                                                                                                                                                                                                                                                                                                                                                                       72 IFKPSCVPLMRCGGCCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECR
                                                                                                                                                                                                                                                                                                                                                                                                          67 QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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ZIP: 07065-0900
                                                                                                                                                                                                                                                                                                                                                                                                                                         12 LALLLYLHHAKWSQAAPMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEY 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE:
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                  NO:7:
215
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                36.7%; Score 264; DB 4; 43.9%; Pred. No. 1.5e-23;
                                                                                                    US/07/337,037
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5240848-7

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                 Query Match
Best Local :
                                                                                                                                                                              TELEPHONE: (202)371-260
TELEFAX: (202)371-2540
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 08/:
FILING DATE: 8-MAR-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/-
PILING DATE: 06-UN-1995
ATTORNEY/AGENT INFORMATION:
NAME: MARKOWICZ, KAREN R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                              TELEPHONE: (202)371-2600
                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/999,811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: HU, JING-SHAN
APPLICANT: ROSEN, CRAIG A.
APPLICANT: CAO, LIANG
TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                   MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     132 PKK 134
                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 36,351
REFERENCE/DOCKET NUMBER: 1488.1000004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    67 QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR 125
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72 IFKPSCVPLMRCGGCCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECR 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10 LAALLQLAPAQAPVSQPDAPG---HQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAK 66
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                                                                                                                    TOPOLOGY: not
                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER:
                                                                                                                                                               LENGTH:
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                  Similarity
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                                                                                                                                                                                                                 (202)371-2540
 Conservative
                                                                                                                 ss: single not relevant
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43.9%;
               36.7%; Score 264; DB 2; 43.9%; Pred. No. 1.6e-23;
                                                                                                                                                                                                                                                                                                                                                 US 08/465,968
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 Mismatches
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                                Length 232;
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 Indels
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 4;
 Gaps
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; LENGTH: 232
; TYPE: PRT
; ORGANISM: Homo sapiens
US-08-824-996-9
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US-08-807-992B-4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/08/824,996B CURRENT FILING DATE: 1997-03-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Rosen, Craig A. APPLICANT: Cao, Liang TITLE OF INVENTION: Polynucel TITLE OF INVENTION: Factor 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Hu, Jing-Shan APPLICANT: Rosen, Craig A.
                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 9 SOFTWARE: PatentIn Ver.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILE REFERENCE: PF112D1
                                                                                                                                           APPLICANT: Senger, I
APPLICANT: DVOTAK, I
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                        CORRESPONDENCE
                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                132 PKK 134
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
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                                STATE:
             COUNTRY:
                                                                     STREET:
                                                                                         ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                          PKK 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR 125
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
54; Conserv
01930
                                                  Magnolia
                              Massachusetts
                                                                       P.O.
               USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                       David
                                                                                                          ADDRESS:
                                                                   Box 5387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ver. 2.0
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                                                                                                                                                                                                                    Donald R
Harold F
                                                                                         Prashker,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                36.7%; Score 264; DB 2;
43.9%; Pred. No. 1.6e-23;
tive 21; Mismatches 44
                                                                                                                           vessel
                                                                                                                                                          Immunological preparation for concurrent specific binding to spatially exposed regions of vascular permeability factor bound in-vivo to a tumor associated blo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 2; Length 232;
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COMPUTER READABLE FORM:

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RESULT 36
US-09-042-105-7
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                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION
APPLICANT: HU, C
APPLICANT: ROSEN
APPLICANT: CAO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 7, Application US/09042105 Patent No. 6040157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: WordPerfect version 5.1
CURRENT APPLICATION DATA:
APPLICATION UNMBER: US/08/807,992B
FILING DATE: March 3, 1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: David Prashker, Esq.
REFERENCE/DOCKET NUMBER: 29,693
REFERENCE/DOCKET NUMBER: BIS-033
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: 4
SEQUENCE CHARACTERISTICS:
LENGTH: 232 amino acids
TYPE: amino acid
                                                                                                                                                      SOFTWARE: PatentIn Release #1.0, Version CURRENT APPLICATION DATA:
                                                                                                                                                                                       COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

OPERATING SYSTEM: PC-DOS/MS-DOS
                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER: (
FILING DATE: 8-MAR-19
                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: ROSEN, CRAIG A. APPLICANT: CAO, LIANG TITLE OF INVENTION: VASCUL
                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                132 PKK 134
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                                                                                                        FILING DATE: H: CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Watch 36.7%; Local Similarity 43.9%;
APPLICATION NUMBER:
                                     CLASSIFICATION:
                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: STERNE, KESSLER, OSTREET: 1100 NEW YORK AVENUE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                72 IFKPSCVPLMRCGGCCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECR 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  67 QLYPSCYTYQRCGGCCPDDGLECYPTGQHQYRMQILMIR-YPSSQLGEMSLEEHSQCECR 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12 LALLLYLHHAKWSQAAPMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PS
OPERATING SYSTEM:
SOFTWARE: WordPe
                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                                  ZIP: 20005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10 LAALLQLAPAQAPVSQPDAPG---HQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAK 66
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TOPOLOGY: li
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION:
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                                                                                                                                                                                                                                                                                                                        WASHINGTON
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                                                                                                                        HEREWITH
                                                    8-MAR-1994
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JING-SHAN
                                                                                                                                                                                                                                                                                                                                                                                                               VASCULAR ENDOTHELIAL GROWTH FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MS DOS
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                                                                    us 08/207,550
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US 08/465,968
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3, 1997
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RESULT 37

5219739-22
;Patent No. 5219739
; APPLICANT: TISCHER, EDMUND G.;ABRAHAM, JUDITH A.;FIDDES,
;JOHN C.;MITCHELL, RICHARD L.
; TITLE OF INVENTION: DNA SEQUENCES ENCODING BYEGF120 AND
;HVEGF 121 AND METHODS FOR THE PRODUCTION OF BOVINE AND HUMAN
;VAASCULAR ENDOTHELIAL CELL GROWTH FACTORS, BVEGF120 AND HVEGF
NUMBER OF SEQUENCES: 40
;CURRENT APPLICATION DATA
;COURRENT APPLICATION DATA
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                                                                                                                                                  Query Match 36.6%; Score 263; DB 6
Best Local Similarity 43.1%; Pred. No. 2e-23;
Matches 53; Conservative 22; Mismatches
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Matches
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INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 232 amino acids
                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/07/559,041
FILING DATE: 27-JUL-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 450,883
FILING DATE: 14-DEC-1989
APPLICATION NUMBER: 387,545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: ERIC K. STEFFE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
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  72
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                                                                          12 LALLLYLHHAKTSQAAPMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEY 71
                                                                                                              10 LAALLQLAPAQAPVSQPDAPG---HQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAK 66
                                                                                                                                                                                                                                                                                                          FILING DATE:
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TOPOLOGY: not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: amino acid
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Les 54; Conservative
                                                                                                                                                                                                                                                                        LENGTH: 215
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
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IFKPSCVPLMRCGGCCNDEGLECVPTEESNITMQIMAILPHQGQHIGEMSFLQHNKCECR 131
                      QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL-MIRYPSSQLGEMSLEEHSQCECR 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR 125
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not relevant
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BVEGF120 AND HVEGF121
                                                                                                                                                                                        DB 6; Length 215;
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PKK 128

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                                                                                                                               Matches
                                                                                                                                                Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/691,794
FILING DATE: 02-AUG-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
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APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 6
FILING DATE: 25-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: Variants of Vascular Endothelial Cell TITLE OF INVENTION: Growth Factor, Their Uses, and Proces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
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                 81 CCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRPKK 128
                                                                                                                                                                                                                                            STRANDEDNESS:
TOPOLOGY: un
                                                                                                                                                                                                                                                                                           LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 08/567,200 FILING DATE: 05-DEC-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
60 CCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECRPKK 108
                                                                                               21 APVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGG 80
                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE:
                                                                1 APMAEGGGQNH-HEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEYIFKPSCVPLMRCGG
                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        San Francisco
                                                                                                                                                                                                                                                                            amino acid
                                                                                                                                                                                                                              TYPE:
                                                                                                                                                                                                                                                                                                                                                910 277299
                                                                                                                                                                                                                                                                                                                                                                                                                                            Dreger, Walter H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         California
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Four Embarcadero Center,
                                                                                                                                                                                                                                                                                           109 amino acids
                                                                                                                                                                                                                                                                                                                                                              (415)
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                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Li, Bing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wells,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Keyt, Bruce A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                             protein
                                                                                                                                                                                                                                                               unknown
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                                                                                                                                              35.7%;
44.0%;
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                                                                                                                             21;
                                                                                                                                                                                                                                                                                                                                                                                                             A-63758/WHD
                                                                                                                            Score 257; DB 3; I
Pred. No. 4.2e-23;
1; Mismatches 38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Albritton & Herbert
Suite 3400
                                                                                                                                                            Length 109;
                                                                                                                             Indels
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                                                                                                                            Gaps
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5194596-19
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5194596-19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-392-932-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
;Patent No. 5219739
; APPLICANT: TISCHER, EDMUND G.;ABRAHAM, JUDITH A.;FIDDES,
                                      RESULT 41
5219739-20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Patent No. 5194596;
Patent No. 5194596;
Patent No. 5194596;
Patent No. 5194596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C.; MITCHELL, RICHARD L. TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO:19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GROWTH FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 11
LENGTH: 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 11, Application US/09392932 Patent No. 6352975
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Best Local Similarity
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                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                 Query Match
Best Local
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CURRENT APPLICATION NUMBER: US/09/392,932
CURRENT FILING DATE: 1999-09-09
EARLIER APPLICATION NUMBER: 60/099,694
EARLIER FILING DATE: 1998-09-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Schreiner, George F.
APPLICANT: Johnson, Richard J.
TITLE OF INVENTION: METHODS OF TREATING HYPERTENSION AND
TITLE OF INVENTION: COMPOSITIONS FOR USE THEREIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 14-DEC-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 387,545
FILING DATE: 27-JUL-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 32
                                                                                                                60
                                                                                                                                                   81 CCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRPKK 128
                                                                                                                                                                                                           60 CCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECRPKK 108
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                                                                                                                                                                                      1 APMAEGGGQNH-HEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEYIFKPSCVPLMRCGG
                                                                                                                CCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECRPKK 108
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                                                                                                                                                                                                                                                               1 Similarity
48; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRODUCTION OF VASCULAR ENDOTHELIAL CELL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              35.7%;
                                                                                                                                                                                                                                                                               35.7%;
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                                                                                                                                                                                                                                                             Score 257; DB 6; 1
Pred. No. 4.8e-23;
1; Mismatches 38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 257; DB 4; Length 110; Pred. No. 4.3e-23;
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                                                                                                                                                                                                                                                                                                Length 121;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; JOHN C.; MITCHELL, RICHARD L.

TITLE OF INVENTION: DNA SEQUENCES ENCODING BYEGF120 AND FITTLE OF INVENTIONS FOR THE PRODUCTION OF BOVINE AND HUMAN; WAASCULAR ENDOTHELIAL CELL GROWTH FACTORS, BYEGF120 AND HYEG; NUMBER OF SEQUENCES: 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO:20:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 2, Application US/08784551C Patent No. 6013780
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/07/55
FILING DATE: 27-JUL-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 450,883
FILING DATE: 14-DEC-1989
APPLICATION NUMBER: 387,545
FILING DATE: 27-JUL-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
INFORMATION FOR SEQ
                                                                                                                                                                                                                                                       SOFTWARE: FASTSEN: IBM P.C. DOS 5.0 SOFTWARE: FASTSEQ for Windows 2.0 CURRENT APPLICATION DATA: APPLICATION UNBER: US/08/784 SETOFILING DATE:
                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: storage
                                                     TELEPHONE: (202) 463-7700
                                                                                                                                                                                                                  FILING DATE: January 21, CLASSIFICATION: 514
PRIOR APPLICATION DATA:
                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: ANGIOGENIC FACTOR AND USE THEREOF TITLE OF INVENTION: IN TREATING CARDIOVASCULAR DISEASE NUMBER OF SEQUENCES: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                            NAME: Cohen, Herbert
REGISTRATION NUMBER: 25,109
REFERENCE/DOCKET NUMBER: 02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: 900 17th St
STREET: Suite 1000
                                                                                                                                                                             APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   81 CCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRPKK 128
                      TELEX:
                                     TELEFAX:
                                                                                                                                                                                                                                                                                                                                                           COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Washington, D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 121
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 APMAEGGGQNH-HEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEYIFKPSCVPLMRCGG 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECRPKK 108
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zoya Poltorak
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gera Neufeld
Eli Keshet
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                                     (202) 463-6915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Israel Vlodavsky
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                                                                                                                                                                                                                                                                                                                                                      IBM Compatible
IJ
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NO:
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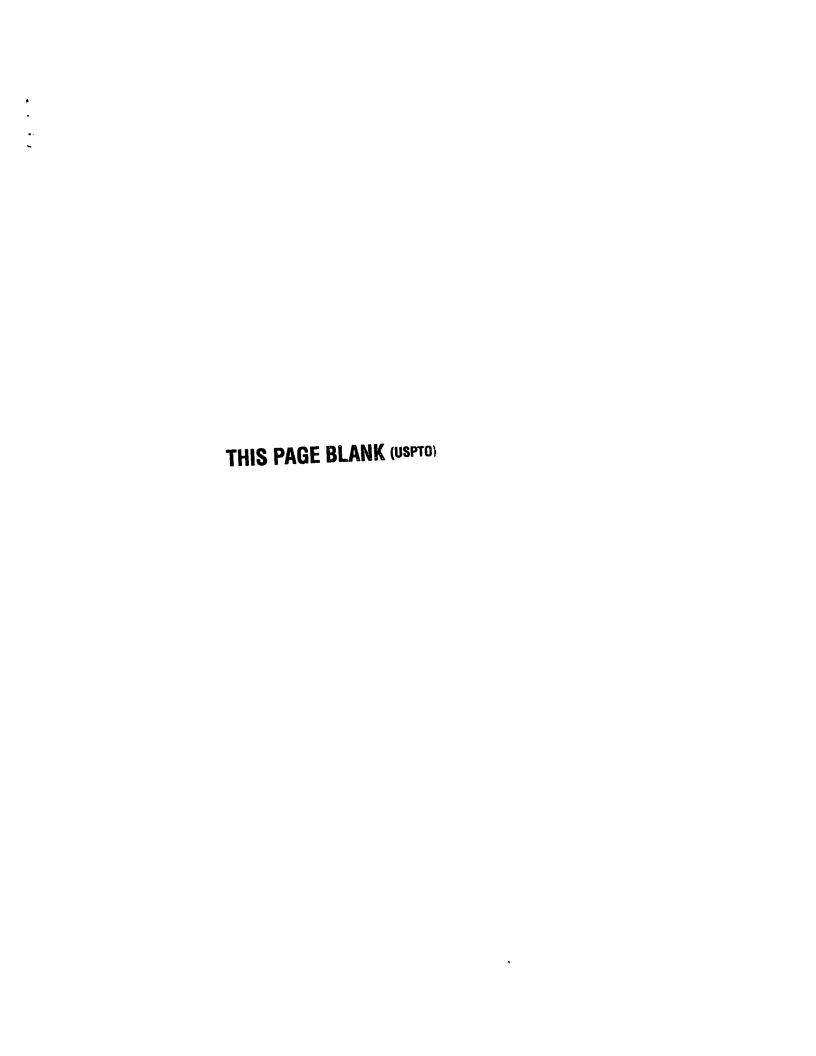
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RESULT 44
5194596-18
;Patent No.
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                                                                                                                                                                              ; APPLICANT: TISCHER, EDMUND G.; ABRAHAM, JUDITH A.; FIDDES, JOHN; C.; MITCHELL, RICHARD L.
; TITLE OF INVENTION: PRODUCTION OF VASCULAR ENDOTHELIAL CELL
                                                                                                                                        GROWTH FACTOR NUMBER OF SEQUENCES: 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS: 11
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 2
LENGTH: 145
TYPE: PRT
ORGANISM: Homo Sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2, Application US/09392932 Patent No. 6352975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
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APPLICANT: Johnson, Richard J.
TITLE OF INVENTION: METHODS OF TREATING HYPERTENSION AND
TITLE OF INVENTION: COMPOSITIONS FOR USE THEREIN
FILE REFERENCE: SCIOS.002A
CURRENT APPLICATION NUMBER: US/09/392,932
CURRENT FILLING DATE: 1999-09-09
EARLIER APPLICATION NUMBER: 60/099,694
EARLIER APPLICATION NUMBER: 60/099,694
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Best Local Similarity
ΙD
                                                                            CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/
FILING DATE: 14-DEC-1989
                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 145 amino acid
              APPLICATION NUMBER: 387, FILING DATE: 27-JUL-1989
                                                                                                                                                                                                                                                                                                                                             60 CCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECRPKK 108
                                                                                                                                                                                                                                                                                                                                                                                        81 CCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRPKK 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                     21 APVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGG 80
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STRANDEDNESS: sir
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60 CCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECRPKK 108
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  NO:18
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44.0%; Pred. No. 6.1e-23;
ative 21; Mismatches 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                35.7%; Score 257; DB 4; 44.0%; Pred. No. 6.1e-23;
                                        387,545
                                                                                                 US/07/450,883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4; Length 145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               38;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
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5194596-18

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RESULT 45
5219739-19
; PATENT NO. 5219739
; JOHN C.; MITCHELL, RICHARD L.
; HYEGF 121 AND METHODS FOR THE PRODUCTION OF BOVINE AND HUMAN
; MASCULAR ENDOTHELIAL CELL GROWTH FACTORS, BVEGF120 AND HUMAN
; MAASCULAR ENDOTHELIAL CELL GROWTH FACTORS, BVEGF120 AND HVEGF121

RUMBER OF SEQUENCES: 40
; CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/559,041
; FILING DATE: 27-JUL-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 450,883
; FILING DATE: 14-DEC-1989
; BEQ ID NO:19:
; LENGTH: 165
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Search completed: September 10, 2002, 02:50:01 Job time: 3524 sec
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                                                                                                              CCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECRPKK 108
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Maximum Match 99%
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Maximum DB
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Copyright (c) 1993 - 2000 Comp
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1 (bases 1 to 202)

Mandriota, S. J. and Pepper, M. S.

Direct Submission
                                                                                  Submitted (16-OCT-1998) Morphology, CMU, 1 rue Michel Servet, 1211 Geneva 4, Switzerland
                                                                                                                                                                                                                     Bos taurus
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/organism="Bos taurus"
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/tissue_type="heart"
                                                               Location/Qualifiers
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ALIGNMENTS

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                                                                                                                                                                                                                                                                                                                                                                          Submitted (23-MAY-1997) Xiaoxu Liu, Kanazawa University School of Medicine, Department of Biochemistry; Takara-machi 13-1, Kanazawa, Ishikawa 930, Japan (B-mall:hyone@med.kanazawa-u.ac.jp, Tel:076-265-2181, Fax:076-234-4226)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Implication In autocrine and paracrine regulation of angiogenesis J. Biol. Chem. 274 (49), 35172-35178 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Yonekura,H., Sakurai,S., Liu,X., Migita,H., Wang,H., Yamagishi,S., Nomura,M., Abedin,M.J., Unoki,H., Yamamoto,Y. and Yamamoto,H. Placenta growth factor and vascular endothelial growth factor B and C expression in microvascular endothelial cells and pericytes.
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Bos taurus Heart tissue_lib:Heart cDNA to mRNA.
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/product="vascular endothelial growth
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                                                                                                                                                                                                                                                           /tissue_type="Heart"
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/db_xref="taxon:9913"
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                                                                Similarity
29; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (23-MAY-1997) xiaoxu Liu, Kanazawa University School of Medicine, Department of Biochemistry; Takara-machi 13-1, Kanazawa, Ishikawa 920, Japan (B-mail:hyone@med.kanazawa-u.ac.jp, Tel:076-265-2181, Fax:076-234-4226)
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endothelial growth factor B167.
Bos taurus Heart tissue_lib:Heart cDNA to mRNA.
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                                                                                                                                                                                                                                                                                                                                                                    /organism="Bos taurus"
/db_xref="taxon:9913"
/tissue_type="Heart"
/tissue_lib="Heart"
96    158
96    662
                                                                                                                                                                                                                   CRRSFLRCQGRGLELNPDTCRCRKLRR"
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atcQprevvvplnmelmgtvaKQLvpsCvTvQRcGgCCPDDGLECvpTGQHQVRmQIL
mIQYpssQLgemsLebHsQCECRpKKRESAVKpDsPRPLCPRCPQRRQRPDPRTCHCR
                                                                                                                                                                /product="vascular endothelial 368 c 321 g 172 t
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                                                                                                                                                                                                                                                                                      /protein_id="BAA77685.1"
/db_xref="GI:4850310"
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Pred. No. 0.14
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Eriksson, U., Olofsson, B., Alitalo, K. and
Vascular endothelial growth factor-B and
Patent: US 5607918-A 8 04-MAR-1997;
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Eriksson, U., Olofsson, B., Alitalo, K.
Vascular endothelial growth factor-B
Patent: US 5840693-A 8 24-NOV-1998;
1 (bases 1 to 565) Eriksson,U., Olofsson,B., Alitalo,K. and Vascular endothelial growth factor-B
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Eriksson,U., Olofsson,B., Alitalo,K. and Pajusola,K. Vascular endothelial growth factor-B and DNA coding Patent: US 5607918-A 4 04-MAR-1997;

Location/Qualifiers
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Location/Qualifiers
1. .565
                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eute Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mul (bases 1 to 567)
Townson,S., Lagercrantz,J., Grimmond,S., Silins,G., Nordenskjold,M., Weber,G. and Hayward,N.
Characterization of the murine VEGF-related factor gene Biochem. Biophys. Res. Commun. 220 (3), 922-928 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                    l Similarity
28; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unknown
                       Direct Submission
Submitted (21-DEC-1995) Nicholas K. Hayward, Joint Experimental
Oncology Unit, Queensland Institute of Medical Research, Bancro
Centre, 300 Herston Rd, Herston, Brisbane, Queensland, 4029,
            Australia
                                                                                                                                                                                               Mus musculus
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Sequence 12 from patent
AR060516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     l Similarity
28; Conserv
house mouse
                             U48800.1 GI:1234824
                                        (VEGF-B) mRNA,
U48800
                                                            Mus musculus vascular endothelial
                                                                                                                                                                                                                                                                                                                          Unclassified.
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/db_xref="GI:1314336"
/translation="MSPLIRRLLLVALLQLARTQAPVSQFDGPSHQKKVVPWIDVYAR
/translation="MSPLIRRLLLVALLQLARTQAPVSQFDGPSHQKKVVPWIDVYAR
ATCQPREVVVPLSMELMGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTQQHQVRMQIL
MIQYPSSQLGEMSLEEHSQCECRPKKKESAVKPDSPRILCPPCTQRRQRPDPRTCRCR
                                                                                                                                                                                                                                   /organism="unknown"
213 c 173 g
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/product="mvrf167"
179 c 166 g 101 t
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61. .564
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/tissue_type="whole brain"
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/db_xref="taxon:10090"
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93.3%;
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Mus musculus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi Eukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mu Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mu Dases 1 to 795)
1 (bases 1 to 795)
20lofsson,B., Pajusola,K., Kaipainen,A., von Euler,G., Joukov,V., Saksela,O., Orpana,A., Pettersson,R.F., Alitalo,K. and Eriksson, Vascular endothelial growth factor B, a novel growth factor for
                                                                            l (bases 1 to 886)
Eriksson,U., Olofsson,B., Alitalo,K.
Vascular endothelial growth factor-B
Patent: US 5840693-A 1 24-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    l Similarity
28; Conserv
                                                                                                                                                                                                                                                           Sequence 1 from AR060511
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S-171 77, Sweden
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Proc. Natl. Acad. Sci. U.S.A. 93 (6),
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/organism="unknown"
261 c 226 g
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158. .658
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/protein_id="AAB06273.1"
/db_xref="GI:1234825"
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95. .661
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/tissue_type="heart"
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linked heterodimers with VEGF; binds heparin"
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   Submitted Research,
                                                                            Genomic organization of the mouse and human genes for vascular endothelial growth factor B (VEGF-B) and characterization of a second splice isoform J. Biol. Chem. 271 (32), 19310-19317 (1996) 96325041
                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus vascular endothelial growth precursor, mRNA, complete cds.
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Sequence
136625
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                                 Eriksson, U., Alita
Direct Submission
                                                                                                                                                           Olofsson, B., Pajusola, K., von Euler, G., Eriksson, U.
                                                                                                                                                                                                                                                      Olofsson, B., Pajusola, K., Kaipainen, A., von Euler, G., Joukov Saksela, O., Orpana, A., Pettersson, R.F., Alitalo, K. and Eriks Vascular endothelial growth factor B, a novel growth factor
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                      Mus musculus
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1 from patent US 5607918.
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261 c 226 g
(27-MAR-1996) Ulf Eriksson, Ludwig Institute for Cancer Karolinska Institutet, Doktorsringen 12A, Stockholm S-171
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                                                                                                                                                                                                                                                                       von Euler, G., Joukov, V., Alitalo, K. and Eriksson,
                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear RC
factor B 186
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DNA coding therefor
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                                                                                                                                                                                                                                         Australia
On Dec 4,
                                                                                                                                                                                                                                                                                                                                                                       Townson, S., Lagercrantz, J., Grimmono, S., Diana, J., Rordenskjold, M., Weber, G. and Hayward, N. Rordenskjold, M., Weber, G. and Hayward, N. Characterization of the murine VEGF-related factor gene Characterization of Res. Commun. 220 (3), 922-928 (1996)
                                                                                                                                                                                                                                                                   Submitted (21-DEC-1995) Nicholas K. Hayward, Joint Experimental Oncology Unit, Queensland Institute of Medical Research, Bancro Centre, 300 Herston Rd, Herston, Brisbane, Queensland, 4029,
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MMU43836 1236 bp mRNA linear ROD of Mus musculus VEGF-related factor mvrf186 precursor mRNA,
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28; Conserv
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/protein_id="AAC52823.1"
/db_xref="GI:1488261"
/translation="MSPLLRRLLVALLQLARTQAPVSQFDGPSHQKKVVPWIDVYAR
ATCQPREVVVPLSMELMGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL
MIQVPSQLGEMSLEEHSQCCCRPKKKESAVKPDRVAIPHHRPQPRSVPGWDSTPGAS
SPADIIHPTPAGSSARLAPSAVNALTPGPPAAAAADAAASSIAKGGA"
a 317 c 254 g 155 t
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95. .718
/product="mvrf186 precursor"
/protein_id="AAC52932.1"
/db_xref="GI:1314334"
                                                                                                                                                                                                                                       1996 this sequence version replaced gi:1314333
                                                 /codon_start=
                                                              /note="VEGF-related factor"
                                                                             /dev_stage="neonatal"
193. .816
                                                                                                             library
                                                                                                                                           /tissue_type="whole brain"
                                                                                                                                                             /clone="m175-m1"
                                                                                                                                                                        /organism="Mus musculus"
/db_xref="taxon:10090"
                                                                                                                                                                                                          Location/Qualifiers
1. .1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:1703480
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/tissue_type="heart"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      McCarthy, M., McEwan, P., McKernan, K., McPheeters, R., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V., Murphy, T., Naylor, J., Nguyen, C., Norbu, C., Norman, C. H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R., Ribback, M., Riley, R., Rise, C., Rogov, P., Roman, J., Rosetti, M., Roy, A., Santos, R., Schauer, S., Schupback, R., Seaman, S., Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, N., Strauss, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Travers, M., Travis, N., Trigillo, J., Vassiliev, H., Vlel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W.J., Young, G., Jainot, C., Markey, L., Zimmer, A. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Brown, A., Camarata, J., Campopiano, A., Chang, J., Chazaro, B., Choepel, Y., Colangelo, M., Collins, S., Collynore, A., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Ferreira, P., Fitzhugh, W., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Gord, S., Goyette, M., Graham, L., Grand-Pierre, N., Hagos, B., Heaford, A., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., LaRocque, K., Lamazares, R., Landers, T., Lehoczky, J., Levine, R., Liu, G., MacClan, C., MacConald, P., Major, J., Marquis, N., Matthews, C., MacCarthy, M., McCenan, P., McCernan, K., McChan, K., McChan, K., McCernan, K., McChan, K., McChan, K., McChan, K., McChan, K., McCernan, K., McChan, K., McChan
                                                                                                                                                                                                                                                                                                                                                          Submitted (22-NOV-2001) Whitehead Institute/MIT Cer
Research, 320 Charles Street, Cambridge, MA 02141,
Research sere identified using RepeatMasker:
All repeats were identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 77265)
Birren,B., Linton,L., Nusbaum,C. and Lander,B.
Homo sapiens chromosome 11, clone RP11-783K16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Birren,B., Linton,L., Nusbaum,C., Lander,E., Ali,A., Anderson,S., Barna,N., Bastien,V., Boguslavkty,L., B
                                                                                                                                                                                                                                                                                                                     http://ftp.genome.washington.edu/RM/RepeatMasker.html
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Center project
Center clone na
                                                                                                                Contact: sequence_submissions@genome.wi.mit.edu
                                                                                                                                                                                                                                              Center: Whitehead Institute/ MIT Center
                                                                                                                                                                                                        Center code: WIBR
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                                                                                                                                                          http://www-seq.wi.mit.edu
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sequencing reads that have not been assembled into contigs. Runs of N are used to separate the reads and the order in which they appear is completely arbitrary. Low-pass sequence sampling is useful for identifying clones that may be gene-rich and allows overlap relationships among clones to be deduced. However, it should not be assumed that this clone will be sequenced to completion. In the event that the record is updated, the accession number will
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17 40227: contig of 911 bp in length
18 40327: gap of 100 bp
18 41227: contig of 900 bp in length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (15-MAR-2000) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC); 1-15-1 Kitasato, Sagamihara, Kanagawa 228-8555, Japan (E-mail:hattori@gsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-42-778-9923, Fax:81-42-778-9924) on Sep 15, 2000 this sequence version replaced gi:8117327.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Published Only in DataBase (2000) In press (2006) 
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Hattori,M., Ishii,K. Toyoda,A., Taylor,T.D., Hon Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and Homo sapiens 151,747 genomic DNA of 11q13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AP001453 151747 bp DNA linear HTG HOMO sapiens chromosome 11 clone RP11-783K16 map 11q13, DRAFT SEQUENCE, 37 unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28; Conservative
NOTE: This is a 'working draft' sequence.
37 contigs. The true order of the pieces:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
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HOMO sapiens DNA, clone:RP11-783K16.
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AP001453.3 GI:10130047
                                                                                                          Center project name: HumDraft11
Center clone name: RP11-783K16
Center clone name: RP11-783K16
Sequencing vector: PCR products; 100% of reads
Chemistry: Dye-terminator ET-amersham; 100% of reads
Assembly program: Phrap; version 0,990329
Consensus quality: 136959 bases at least Q40
Consensus quality: 143151 bases at least Q30
Consensus quality: 143151 bases at least Q20
Insert size: 146147; sum-of-contigs
Quality coverage: 8.32x in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Web site: http://hgp.gsc.riken.go.jp/
Contact: hattori@gsc.riken.go.jp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Center code: RIKEN
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66564: gap of 100 bp
67430: contig of 866 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         - Genome Center
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Toyoda, A., Taylor, T.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No.
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                                          It currently consists of
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hong-Seog,P.,
and Sakaki,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        77265;
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order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence

is available and the accession number will be

with the finished sequence

The true order of the pieces is not known and their

preserved as soon as

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102160 contig of 4403 bp in length
102261
107715 contig of 3333 bp in length
119816
111480 contig of 3655 bp in length
119816
111481
114135
11720 contig of 2455 bp in length
117821
12176 contig of 3585 bp in length
12277
123962 contig of 2686 bp in length
122875
131280 contig of 2686 bp in length
128525
131280 contig of 2756 bp in length
131381
133764 contig of 2756 bp in length
131381
133765
137166 contig of 2702 bp in length
131381
137267
139968 contig of 2702 bp in length
140069
141480 contig of 1312 bp in length
142816
144247 contig of 1312 bp in length
142816
144247 contig of 1675 bp in length
144348
146022 contig of 1675 bp in length
147517
148926 contig of 1432 bp in length
147517
148926 contig of 1410 bp in length
147517
148926 contig of 1410 bp in length
147517
151747 contig of 1416 bp in length
147517
151747 contig of 1416 bp in length
147517
151747 contig of 1416 bp in length
147518 is a 'working draft' sequence. It currently
150815 contigs. The true order of the pieces
15 not known and their order in this sequence record is
15 not known and their order in this sequence as seven as it is avaitable and the accession number will
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8903 9002: gap of 100 bp

9003 18232: contig of 9230 bp in length

18233 18332: gap of 100 bp

18333 28659: contig of 10327 bp in length

28660 28759: gap of 100 bp

28760 37331: contig of 8572 bp in length
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gap of 100 bp
66: contig of 7635 ]
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9 14316 bp in

100 bp

9 of 3581 bp in

100 bp

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100 bp

9 of 5536 bp in
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133865 137166: contig of 3302 b
137167 137266: gap of 100 bp
137267 139968: contig of 2702 bp
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140069 141380: contig of 1312 bp
141381 141480: gap of 100 bn
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114136 117720: cont
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107716 107815: gap of
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66443. 69246
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51838 .57917
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93.3%;
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80849 80948: 9ap of 80949 84529: contig of 84530 84629: gap of 84530 88588: contig of 8589 88688: 9ap of 98589 94224: contig of 94225 94324: gap of 94235 94324: gap of 94235 94324: gap of 94325 94324: gap of 94325 94325: gap of 94325 94326: gap of

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                            349 bp mRNA lir
Rattus norvegicus vascular endothelial growth
precursor, mRNA, partial cds.
AF032925
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (22-OCT 1998) Genome Therapeutics Corporation, 100 Street, Waltham, MA 02154, USA
* NOTE: This is a 'working draft' sequence. It currently
* consists of 6 contigs. The true order of the pieces
* is not known and their order in this sequence record is
* arbitrary. Gaps between the contigs are represented as
* runs of N, but the exact sizes of the gaps are unknown.
* This record will be updated with the finished sequence
* as soon as it is available and the accession number will
            precursor, mRNA,
AF032925
AF032925.1 GI:2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Smith, D.R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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HTG; HTGS_PHASE1; HTGS_CANCELLED.
                                                                                                                                                                                                         Similarity 93.3
28; Conservative
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* be preserved.
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/db_xref="taxon:9606"
/chromosome="11"
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                                                                                                                                                                                                                                                                                                clone="CIT987SK~1012F4"
29998 c 29519 g 21315 t
              GI:2641621
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93.3%;
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Pred. No. 0.65
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                                                                                                         Weil, J., Eschennagen, ...
Direct Submission
Submitted (31 AUG-1997) Abteilung Allgemeine Pharmakologie,
Submitted (31 Aug-1977) Abteilung Allgemeine Pharmakologie,
Submitted (31 Aug-1978) Abteilung Allgemeine Pharmakologie,
                                                                                                                                                                                                                    Unpublished
                                                                                                                                                                                                                                                 Weil, J., Eschenhagen, T., Mittma
Isolation and characterization
factor B (VEGF-B)
                                                                                                                                                                                                                                                                                                                                                Rattus norvegicus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
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AF022952
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Rattus norvegicus vascular er
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HQVRMQILMIQYPSSQLGEMSLEEHSQCECRPKRRESAVKPDRVAIPHHRPQPRSVLS
WDSAPGASSPADII"
99 c 104 q 68 +
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/note="RT-PCR product amplified from total RNA from rat placenta, using degenerate oigonucleotides; sequenced or both strands"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            precursor"
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/strain="Sprague-Dawley"
/db_xref="taxon:10116"
/tissue_type="heart"
/note="isolated by P
                                    /organism="Rattus norvegicus"
/db_xref="taxon:10116"
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/db_xref="GI:2641622"
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93.1%;
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                                                              1 (bases 1 to 591)
Eriksson, U., Olofsson, B., Alitalo, K. and Pajusola, K.
Vascular endothelial growth factor-B and DNA coding therefor
Patent: US 5607918-A 6 04-MAR-1997;
                                                                                                                                  Unknown
                                                                                                                                                 Unknown.
                                                                                                                                                                                          Sequence 6 from patent US I36627
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Eriksson, U., Olofsson, B., Alitalo, K. and Pajusola, K. Vascular endothelial growth factor B
Patent: US 5840693-A 6 24-NOV-1998;
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/protein_id="aAB95447.1"
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KPDSPRTLCPRCTXRRXRPDPRTCRCRCRCRRRFLHCQGRGLELNPDTC"
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         /organism="unknown"
186 c 174 g
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/note="VEGF-B"
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86.7%;
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                                           Submitted (27-OCT-2001) Human Genome Sequencing Center, Depa: of Molecular and Human Genetics, Baylor College of Medicine, Baylor Plaza, Houston, TX 77030, USA On Dec 20, 2001 this sequence version replaced gi:17064359.
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                                                                                                                                                                                                                                                                      Worley, K.C.
Direct Submission
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
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Assembly program: Phrap; version findPhrapList
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NOTE: This is a 'working draft' sequence. It currently consists of 52 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
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23; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (25-MAY-2001) National Institutes of Hee Gene Collection (MGC), Cancer Genomics Office, Natinstitute, 31 Center Drive, Room 11A03, Bethesda,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens, clone IMAGE:3458856, mRNA, partial cds. BC008593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Clone distribution: MGC clone distribution information can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: villalon@bcm.tmc.edu.
villalon, D.K., Luna, R.A., Hale, S.M., Hulyk, S., Lu, X., (A.M., Holloway, M., Telford, B, Hodgson, A., Bouck, J., Yu,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
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                                                                                                                                                                                                                                                                                                                                               /product="Unknown (protein for IMAGE:3458856)"
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/VETTSKUNDOGGHSPSPDDQQPIYEREFRTSEVPIWLDYHGKHTMDQVGTFAGL
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                                                                                                                                                                                                                                                                 CDVASRGHEQKGLTGAVGGVIRQLPPTVVKPLILATEATSSLLGGMRNQIVPDAHKDH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone="IMAGE:3458856"
/tissue_type="Cervix, c
/clone_lib="NIH_MGC_12"
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/db_xref="taxon:9606"
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1. (bases 1 to 6299)
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Homo sapiens
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                                                                                                                  CDEAVRDSQAEPTOVHOPPAFLHKILIQILAGVRLHYEELPAQEEPPEPPLQIGSCSGY
MELMVKLKQNEAFPGPKLEVAGQIGSCHILLITPRQLOQDELGAVSLTDHEGLADKL
NKSRPLGAEDLHLI EQDLNQQLQAGA VAEPLSPDPLTNPLLNILDNTDLFESMAGLTSS
VASALSELSLSDVDLASSYRSDMASRRLSAQAHPAGKMAPNPLLDTMRPDSLLKWTLG
GVTLTILLQTSAPESGRPRTTSMASTRRLSAQAHPAGKMAPNPLLDTMRPDSLLKWTLG
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TGTAVQLSWELRTGSRGRRTTSMEVHFGQLEVLECLMPRGTSEPEYTEILTFPGTLGS
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LRLATVPAEPPACLLTEPLPAMEQQTVERLSAPRATLRLRFPIADLRPERDPMACQAV
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RTMYSTEEMVIPGDPEEMRTFQSRTLALSRCSLEVILPSVHIFLPSKEVYESIVRIN
NDLLMMEPADLLPTPDDPAAQPSGFFGPSGFWIDSFKMCKSAFKLANCFDLTPDSDSDD
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KATLRHYMALPEQSMHSQLLEELDVLDDPVLGVLPFVII ILHTHLFSCSVDYRPLYL
PVRVLITAETFFLSNIIMDTSTFLLRTILDDSALVLSDCEVETLDLRDDVVCVLDV
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QHHYLMEIQLSKYSFQHEYYPAEPATGPAAPSQELEERPLSRQVFIYQELEVRDRLAS
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                                                                                             EFCILDAPGLGIPPRDGEPVVTQLHPGPIVVRDGYFSRPIGSTDLLRAPAHFPVPSTR
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/clone_lib="pBluescriptII SK plus"
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/db_xref="taxon:9606"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Anderson, S., Barna, N., Bastien, V., Beda, F., Boguslavkiy, L., Boukhqalter, B., Brown, A., Burkett, G., Campopiano, A., Castle, A., Choepel, Y., Colangelo, M., Collins, S., Colongore, A., Cocke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Ferreira, P., FitzHugh, W., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Goyette, M., FitzHugh, W., Grand-Pierre, N., Hagos, B., Heaford, A., Horton, L., Ilevino, B., Tamasarca, B., Tamasa
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (12-OCT-2000) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Birren, B., Linton, L., Nusbaum, C., Lander, E., Abraham, H., Allen, N.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission
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sequencing reads that have not been assembled into contigs. Runs of N are used to separate the reads and the order in which they appear is completely
                                                                                                                          NOTE: This record contains 79 individual
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                                                                                                                                                                                                                                                 Contact: sequence_submissions@genome.wi.mit.edu
------ Project Information
Center project name: L10806
                                                                                                                                                                                                           Center project name:
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VSRSLQDKRSARRLRGQQPADLREGVAKAYDTVREGILDTAQTICDVASRGHEQKGL
TGAVGGVURQLPFTVKPLILATEATSSLLGGMRNQIVPDAHKDHALKWRSDSAQD"
a 2128 c 1897 g 1150 t
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* overlap relationships among clones to be deduced.

* However, it should not be assumed that this clone

* will be sequenced to completion. In the event that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   be preserved.
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10147 10835: contig of 689 bp
10836 10935: gap of 100 bp
10936 11596: contig of 661 bp
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13915: contig of 667 bp

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3 (bases 1 to 108523)
Agarwal, S.K., Kester, M., Kim, Y.S., Hepl
Spiegel, A.M., Burns, L.A. and Marx, S.J.
Sequence of a 11q13 bac mapping distal
D1154936
                                                                                                                                                                                                                                                                                                                                                                                     5 (bases 1 to 108523)
Wang, Y. and Roe, B.A.
Direct Submission
Submitted (12-MAR-1997) Department Of Chemistry And Biochemistry,
The University Of Oklahoma, 620 Parrington Oval, Room 208, Norman,
                                                                                                       Direct Submission Submitted (16-MAR-1999) Department Of Chemistry And Biochemistry, Submitted (16-MAR-1999) Department Of Chemistry And Biochemistry, The University Of Oklahoma, 620 Parrington Oval, Room 208, Norman
             Submitted (31-MAR-2001) Department Of Chemistry And Biochemistry, The University Of Oklahoma, 620 Parrington Oval, Room 208, Norman
                                                                                                                                                                                                      Direct Submission
Submitted (11-MAR-1999) Department Of Chemistry And Biochemistry,
The University Of Oklahoma, 620 Parrington Oval, Room 208, Norman
                                                                                                                                                                                                                                                                                              Direct Submission
Submitted (09-MAR-1999) Department Of Chemistry And Biochemistry,
The University Of Oklahoma, 620 Parrington Oval, Room 208, Norman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 (bases 1 to 108523)
Chandrasekharappa, S.C.,
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Sequence of a 11q13 bac mapping D11S4936
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AC000159.6 GI:4417315
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Unpublished
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Weisemann, J. and Boguski, M.S.
                                            Direct Submission
                                                         Fu,Y., Pan,H., Wang,Y., D
Meadows,S.M. and Roe,B.A.
                                                                                                                                                               Roe, B.A.
                                                                                                                                                                                           OK 73019,
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mmalia; Eutheria; Primates;
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ne 11q13 BAC Clone
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            620 Parrington Oval,
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                                                                     Dolance, J.E.,
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Submitted (30-NOV-1999) Masahira Hattori, The Institute of Physical Submitted (35-NOV-1999) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC);
Kitasato Univ., 1-15-1 Kitasato, Sagamihara, Kanagawa 228-8555,
Kitasato Univ., 1-15-1 Kitasato, Sagamihara, Kanagawa 228-8555,
Japan (E-mail:hattori@gsc.riken.go.jp,
URL:http://hgp.gsc.riken.go.jp/, Tel:81-42-778-9923,
Fax:81-42-778-9924)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 135237)
Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D.,
Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. a
Homo sapiens 135,237 genomic DNA of 11g13
published Only in DataBase (1999) In press
2 (bases 1 to 135237)
Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D.,
Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         135237 bp DNA linear HTG 31-MAY-2000 Homo sapiens chromosome 11 clone xxpac-969D11 map 11q13, WORKING DRAFT SEQUENCE, 31 unordered pieces.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (04-APR-2001) Department Of Chemistry And Biochemistry
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Fu, Y., Pan, H., Wang, Y.
                                                                                                                                                                                                                                                                                                                                                       On May 31, 2000 this sequence version replaced gi:6997651
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                Consensus quality: 129566 bases at least Q20

Center grouper trame: HumDraft11

Center clone name: Xxpac-959D11

Center clone name: Xxpac-959D11

Sequencing vector: PCR products; 100% of reads chemistry: Dye-terminator E7-amersham; 100% of reads chemistry: Dye-terminator E7-amersham; 100% of reads consensus quality: 116075 bases at least Q40

Consensus quality: 129566 bases at least Q20
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                                                                                                                                                                                                                                            Web site: http://hgp.gsc.riken.go.jp/
Contact: hattori@gsc.riken.go.jp
                                                                                                                                                                                                                                                                     Center code: RIKEN Web site: http://hg
                                                                                                                                                                                                                                                                                                               Center: RIKEN Genomic Sciences Center(GSC)
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Eutheria; Primates; Catarrhini; Hominidae; Homo.
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sum-of-contigs
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Quality coverage: 4.10x in Q20 bases; sum-of-contigs
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NOTE: This is a 'working draft' sequence. It currently consists of 31 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved

1 4762 contig of 14762 bp in length

130924 133005 127255 129550 101745 103888 134159 10637 121798 120448 14863 22848 31978 40889 134058 contig of 135237 contig of 11471 11021 10627 132904 130823 123907 103787 10164 contig of contig 14762 bp 7885 bp 9030 bp 8811 bp 9374 bp 2958 2475 1250 1250 2110 1639 1408 2195 1274 7062 6271 4638 4502 4681 3839 1968 5948 4647 length length

Sequence updated (26-May-2000).

\* NOTE: This is a 'working draft' sequence. It currently consists of 31 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.

1 14762: contig of 14762 bp in length
14763 14862: gap of 100 bp
14863 22747: contig of 7885 bp in length
22748 22847: gap of 100 bp
22848 31877: contig of 9030 bp in length
31878 31977: gap of 100 bp
31978 40788: contig of 8811 bp in length
40789 40888: gap of 100 bp
40889 50262: contig of 9374 bp in length
50363 50362: gap of 100 bp
50363 50362: gap of 100 bp
50363 56310: contig of 5948 bp in length
56311 56410: gap of 100 bp
51611 56410: gap of 100 bp 61058 61157: gap of 100 bp 61158 6838219: contig of 7062 bp 68220 68319: gap of 100 bp 68320 74590: contig of 6271 bp 74591 74690: gap of 100 bp 74691 79328: contig of 4638 bp 79329 79428: gap of 100 bp 79429 83931 83930: contig of 4502 84030: gap of 100 by 88711: contig of 4681 88811: p of 100 bp contig of 4647 k đđ ďq ďď đđ đđ bp in in ĭn length length length length length

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117873 120347: cont
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120348 120447; app of 100 bp
120448 121697; contig of 1250 bp
121698 121797; app of
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130924 132904: contig of 1981 bp in length
132905 133004: gap of 100 bp
133005 134058: contig of 1054 bp in length
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101745 103787: contig of 2043 bp in length
103788 103887: gap of 100 bp
103888 106271: contig of 2384 bp in length
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93107. .97278
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/db_xref="taxon:9606"
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93106: gap of 100 bp
97278: contig of 4172 bp in length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             and Chemical Research (RIKEN), Genomic Sciences Center (GSC); 1-7-22 Suehiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:hattori@gsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-45-503-9111, Fax:81-45-503-9170) On Jan 16, 2001 this sequence version replaced gi:8117633.
Center project Information
Center project name: Humbraftl1
Center clone name: Relationarial
Center 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D., Hong-Seog,P., Fujiyama,A., Yada,T., Totoki,Y., Watanabe,H. and Sakaki,Y. Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hattori,M., Ishii,K., Toyoda,A., Taylor,T.D., Hong-Seog,P., Fujiyama,A., Yada,T., Totoki,Y., Wattanabe,H. and Sakaki,Y. Homo sapiens 166,269 genomic DNA of 11q13 Published Only in DataBase (2000) In press 2 (bases 1 to 166269)
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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HOMO Sapiens DNA, clone:RP11-665N17.
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Center code: RIKEN
Web site: http://hgp.gsc.riken.go.jp/
Contact: hattori@gsc.riken.go.jp
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112379. .114714
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110311. .112278
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101745. .103787
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114815. .117772
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NOTE: This is a 'working draft' sequence. It currently consists of 27 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be

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76675 86418: contig of 9744 bp in

86419 86518: gap of 100 bp

86519 94044: contig of 7526 bp in

94045 94144: gap of 100 bp

94145 100790: contig of 6646 bp in

100791 100890: gap of 100 bp

100891 108539: contig of 7649 bp in
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115962 116061: gap of 100 bp
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120259 120358: gap of 100 bp
120359 120359: contig of 5001 bp in
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161500 161599: gap of 1104 bp in

162704 162803: gap of 100 bp

162804 163847: contig of 1044 bp in

163848 163947: gap of 100 bp

163848 165121: contig of 1174 bp in

163948 165121: config of 1174 bp in
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155656. .157198
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151107. .153748
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/chromosome="11"
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55655: gap of 100 bp
157198: contig of 1543 bp
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                                                                                                                                     NOTE: This is a 'working draft' sequence. It currently consists of 33 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
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Submitted (17-DEC-1999) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC);
Kitasato Univ., 1-15-1 Kitasato, Sagamihara, Kanagawa 228-8555,
Japan (E-mail:hattori@gsc.riken.go.jp,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      URL:http://hgp.gsc.riken.go.jp/, Tel:81-42-778-9923,
Fax:81-42-778-9924)
On May 31, 2000 this sequence version replaced g1:6997744.
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37933 a 44411 c 44369 g 36956 t
                                                                                                                                                                                                                                                            Assembly program: Phrap; version 0.990329 Consensus quality: 141099 bases at least Q40 Consensus quality: 154862 bases at least Q30 Consensus quality: 163556 bases at least Q20 Insert size: 168780; sum-of-contigs Quality coverage: 3.98x in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                     Sequencing vector: PCR products; 100% of reads Chemistry: Dye-terminator ET-amersham; 100% of
                                                                                                                                                                                                                                                                                                                                                                                                                                              Center project Information
Center project name: HumDraft11
Center clone name: RP11-772K10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Center: RIKEN Genomic Sciences Center(GSC)
center code: RIKEN
Web site: http://hgp.gsc.riken.go.jp/
Contact: hattori@gsc.riken.go.jp
                         13699
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165222. .166269
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  26666
13598 bp in
13117 bp in
10947 bp in
8426 bp in
8572 bp in
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Sequence updated (26-May-2000).

* NOTE: This is a 'working draft' sequence. It currently

* consists of 33 contigs. The true order of the pleces

* is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   * arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown.

* This record will be updated with the finished sequence are soon as it is available and the accession number will be preserved.
                     110423 110522: "gap of 100 bp 110523 116801: contig of 6279 bp in 116802 116901: gap of 100 bp 116902 121999: contig of 5088 bp in 121990 122089: gap of 100 bp 122090 125946: contig of 8857 bp in 125947 126046: gap of 100 bp 126047 132109: contig of 6063 bp in 132110 132209: gap of 100 bp 132110 132209: gap of 100 bp 132110 136422: contig of 4213 bp in 132110 136422: contig of 4213 bp in 132110 1326947 126046: gap of 100 bp 132110 13209: gap of 100 bp 132110 13209: gap of 100 bp 132110 13209: gap of 100 bp 1
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13699 26815: contig of 13117 bp in length
26816 26915: gap of 100 bp
26916 37862: contig of 19947 bp in length
37863 37962: gap of 100 bp
37963 46388: contig of 8426 bp in length
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76353: contig of 7292 bp in
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140567 140666: gap of 100 bp
140667 144574: contig of 3908 bp in le
144575 144674: gap of 100 bp
144675 148311: contig of 3637 bp in le
148312 148411: gap of 100 bp
148412 150652: contig of 2241 bp in le
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167735 167834: gap of 100 bp
167835 168855: contig of 1021 bp
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153336 153435: gap of 100 bp
153436 155668: contig of 2233 bp
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170190 170655: cont
170656 170755: gap of
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/db_xref="taxon:9606"
/chromosome="11"
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6 171980: contig of 1225
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Published Only in DataBase (2000) In press 2 (bases 1 to 178100)
Hattori,M., Ishii,K., Toyoda,A., Taylor,T.I Fujiyama,A., Yada,T., Totoki,Y., Watanabe, Direct Submission
                                                                                                                                                                                                                                                                                           order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
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                                                                                                                                                                                                                                                                                                                                                      NOTE: This is a 'working draft' sequence. It currently con 40 contigs. The true order of the pieces is not known and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      URL:http://hgp.gsc.riken.go.jp/, Fax:81-42-778-9924)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                   Sequencing vector: PCR products; 100% of reads Chemistry: Dye-terminator ET-amersham; 100% of reads Assembly program: Phrap; version 0.990329
Consensus quality: 148042 bases at least Q40
Consensus quality: 162125 bases at least Q30
Consensus quality: 169512 bases at least Q20
Consensus quality: 169512 bases at least Q20
Insert size: 174200; sum-of-contigs
Quality coverage: 4.12x in Q20 bases; sum-of-contigs
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Web site: http://hgp.gsc.riken.go.jp/Contact: hattori@gsc.riken.go.jp
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sapiens DNA, clone:RP11-686D5
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  It currently consists
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and Sakaki, Y.
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156337 157919 159903 163211 164737 166694 167968 167968 170925 172905 174098 175851

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contig contig contig contig

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140382 142702 145578

142601 145477 151182

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175851 176984 contig of 1134 bp in length
177085 178100 contig of 1016 bp in length
Sequence updated (26-May-2000).

* NOTE: This is a 'working draft' sequence. It currently
* consists of 40 contigs. The true order of the pieces
* is not known and their order in this sequence record is
* arbitrary. Gaps between the contigs are represented as
* runs of N, but the exact sizes of the gaps are unknown.
* This record will be updated with the finished sequence
* as soon as it is available and the accession number will
                                                                                   106256 106355: gap of 100 bp 106356 110801: contig of 4446 bp 110802 110901: gap of 3936 bp 110902 114837: contig of 3936 bp 110902 114837: gap of 100 bp 110938 114937: gap of 100 bp 110938 114938: gap of 100 bp 120431 120530: gap of 100 bp 120531 125238: gap of 100 bp 125339 125338: gap of 100 bp 125339 126370: contig of 3032 bp 126371 126470: gap of 100 bp 126371 126470: gap of 2714 bp 126471 131184: contig of 3032 bp 126471 131184: contig of 3714 bp 126471 13184 bp 126471 13184 bp 126471
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20171 34749: contig of 14579 bp in len
34750 34849: gap of 100 bp
34850 50049: contig of 15200 bp in len
50050 50149: gap of 100 bp
50150 60765: contig of 10616 bp in len
60766 60865: gap of 100 bp
60766 67727: contig of 6862 bp in len
67788 67827: gap of 100 bp
67828 76362: contig of 6862 bp in len
67828 76362: contig of 6853 bp in len
76463 8230: contig of 5768 bp in len
8231 8330: gap of 100 bp
8231 8330: gap of 100 bp
8231 89521: contig of 5768 bp in len
84552 84671: contig of 5768 bp in len
84552 84671: contig of 5768 bp in len
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76463. 82230
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34850. .50049
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/db_xref="taxon:9606"
/chromosome="11"
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57828. .76362
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Birren,B., Linton,L., Nusbaum,C., Lander,E., Allen,N., Anderson,S Barna,N., Bastien,V., Boguslavkiy,L., Boukhgalter,B., Brown,A., Camarata,J., Campopiano,A., Choepel,Y., Colangelo,M., Collins,S., Collymore,A., Cooke,P., Dearnlano,K., Dearn,K., Diaz,J.S., Collymore,A., Cooke,P., Dearnlano,K., Cooke,P., Dearnlano,K., Daiz,J.S., Daiz,J.S., Cooke,P., Dearnlano,K., Dearn, C., Diaz,J.S., Cooke,P., Dearnlano,K., Dearn, C., Dearnlano,K., 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (17-FEB-2001) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA on Jul 20, 2001 this sequence version replaced gi:12957952.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              All repeats were identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997)
http://ftp.genome.washington.edu/RM/RepeatMasker.html
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SEQUENCE, 23
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                              NOTE: This is a 'working draft' sequence. It currently consists of 23 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence
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                                                                                                                                                                                                                                                                                                                                                                                      Sequencing vector: Plasmid; n/a; 100% of reads Chemistry: Dye-terminator Big Dye; 100% of read Assembly program: Phrap; version 0.960731 Consensus quality: 177293 bases at least Q40 Consensus quality: 181933 bases at least Q20 Consensus quality: 183738 bases at least Q20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Quality coverage: 6.3 in Q20 bases; agarose-fp Quality coverage: 6.2 in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Center: Whitehead Institute/ MIT Center for Genome Research Center code: WIBR
                                                                                                                                                                                                                                                                                                                            Insert size: 182000; agarose-fp
Insert size: 185283; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Web site: http://www-seq.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -- Genome Center
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1, WORKING DRAFT
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57005 57104: gap 0.
57105 64258: conti
64259 64358: gap of
64359 64358: gap of
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36062 38758: contig of 2697 to
38759 38858: gap of 100 bp
38859 42149: contig of 3291 k
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11521 11621: gap of 110 bp
11522 11621: gap of 100 bp
11622 13944: contig of 2323 b
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9235 10076: contig of
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11311 .11521
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51562: gap of 100 bp
57004: contig of 5442 k
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46505: contig of 4256 k
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16117: con
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.62541: contig of 21605
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64258: contig of 7154 bp in length
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contig of 14018 bp in length
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                                                                           Birren, B., Linton, L., Nusbaum, C., Lander, E., Allen, N., Anderson, S. Barna, N., Bastien, V., Boguslavkiy, L., Boukhgalter, B., Brown, A., Campopiano, A., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Ferreira, P., Fitzhugh, W., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Goyette, M., Grand, Pierre, N., Hagos, B., Heaford, A., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Karatas, A., LaRocque, K., Lamazares, R., Landers, T., Leboczky, J., Levine, R., Liu, G., MacLean, C., MacGonald, P., Lamazares, R., MacKernan, K., MacKernan, K.,
                                                                                                                                                                                                                                                                                                                                                                                                     Mammalia, warning and Lander, E. Birren, B., Linton, L., Nusbaum, C. and Lander, E. Birren, B., chromosome 11, clone RP11-686D5
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                            McPheeters, R., Meldrim, J.,
                                                  Marquis, N., Matthews, C., McCarthy, M., McEwan, P., McKernan, K.,
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64359. .69102
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42250. .46505
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185771. .187483
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129015. .140836
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100003...114020
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80679. .91084
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46606. .51462
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140937. .162541
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114121. .128914
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162642. .185670
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0; Mismatches
Nguyen, C.,
                            Meneus, L., Mihova, T.,
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                            Mlenga, V.,
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On Jul 29, 2001 this sequence version replaced gi:13376411. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997)
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Submitted (17-FEB-2001) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sougnez,C., Spencer,B., Stange-Thomann,N., Stojanovic,N., Strauss,N., Subramanian,A., Talamas,J., Tesfaye,S., Theodore,J., Travers,M., Travis,N., Trigilio,J., Vassiliev,H., Viel,R., Vo,A., Wilson,B., Wu,X., Wyman,D., Ye,W.J., Young,G., Zainoun,J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rieback,M., Riley,R., Rise,C., Rogov,P., Roman,J., Rosetti,M., Roy,A., Santos,R., Schauer,S., Schupback,R., Seaman,S., Severy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Zembek, L., Zimmer, A. and Zody, M.
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                                                                                                                         Chemistry: Dye-terminator Big Dye; 100% of read Assembly program: Phrap; version 0.960731 Consensus quality: 196370 bases at least Q40 Consensus quality: 198053 bases at least Q30 Consensus quality: 198627 bases at least Q20 Insert size: 194000; agarose-fp Consensus quality: 19826; sum-of-contigs Quality coverage: 7.2 in Q20 bases; sum-of-cont Quality coverage: 7.0 in Q20 bases; sum-of-cont
NOTE: This is a 'working draft' sequence. It currently consists of 12 contigs. The true order of the pieces is not known and their order in this sequence record is
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sum-of-contigs
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70289 70...
70289 70...
70389 81723: ...
81724 81823: gap of
81824 93377: contig of 1155...
93378 3477: gap of 100 bp
12502 125121: gap of 100 bp
125122 156983: contig of 31862 bp in 16
156984 157083: gap of 100 bp
157084 198328: contig of 41245 bp in 198329 198428: gap of 100 bp
198429 200026: contig of 1598 bp in 198429 200026: contig of 1598 bp in 198429 --ation/Qualifiers 67366 67465: gap of 100 bp 67466 70288: contig of 2823 bp 70289 70388: gap of 100 bp 21294 21393; gap of 100 bp 21394 22583; contig of 1190 bp in length 22584 22683; gap of 100 bp 22684 23723; contig of 1040 bp in length 23724 23823; gap of 100 bp 21294 21393: 21394 2258 /chromosome="11" /map="11" 26080: 100 bp 25980: contig of 2157 bp 100 bp 67365: contig of 2157 bp 100 bp 1 21293: contig of 21293 bp in length p of 100 bp contig of 41285 bp in length bp in length bp in length in length length length length length

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Homo sapiens chromosome 19, cosmid R30217,
AC004076
AC004076.1 GI:2822142
                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 4132)

Lamerdin,J.E., McCready,P.M., Skowronski,E., Adamson,A.W.,

Burkhart-Schultz,K., Gordon,L., Kyle,A., Ramirez,M., Stilwagen,S.,

Garnes,J., Danganan,L., Poundstone,P., Christensen,M.,

Georgescu,A., Avila,J., Liu,S., Bruce,R., Quan,G., Montgomery,M.,

Ow,D., Notan,M., Trong,S., Kobayashi,A., Olsen,A.O. and
Cosmid R30217 overlaps cosmid R28253 to the left and F18750 to right.
                                                  Submitted (29-JAN-1998) Joint Genome Institute, Lawrence Livermore National Laboratory, 7000 East Ave., Livermore, CA 94551, USA Map and sequence oriented from centromere to q telomere.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     HTG.
                                                                                                                                                                                          Sequence analysis of a 500 kb ZNF gene family- containing human contig in 19q13.4
                                                                                                                                                                                                                                    Carrano, A.V.
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157084. .198328
/note="assembly_fragment"
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93478. .125021
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55290 c 53297 g
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125122. .156983
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1. .21293
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85.2%;
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7067. 7364
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                                                                                                                                                                   /rpt_family="MIR" 7718. .8134
                                                                                                                                                                                                                                                                                                                                                                                  /note="DDS similarity to multiple ESTs:
(4960. .5217) AA446441 zw60d10.rl Soares total fetus Nb2HF8
9W Homo sapiens cDNA clone 774451 5' similar to contains
LTR3.t2 LTR3 repetitive element;
(1. .259); 98% identity.-(4962. .5216) AA195132 zr34b08.rl
Soares NhHMPU S1 Homo sapiens cDNA clone 665271 5' similar
to contains LTR3.bl LTR3 repetitive element; (1. .253); 99%
identity.-(4962. .5216) W03459 za06e09.rl Soares melanocyte
2NbHM Homo sapiens cDNA clone 291784 5' similar to
contains LTR3.bl LTR3 repetitive element; (1. .253); 96%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /rpt_family="AluSp"
4047. .4324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /rpt_family="FRAM/FAM" 3671. .3719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note-"BLASTN similarity to AC003002 (80114. 81544);
match: 1, score: 1.8e-294; database searched: nt; Huma
DNA from overlapping chromosome 19-specific cosmids R:
and R28253, genomic sequence, complete sequence [Homo
                                                        /rpt_family="AluJo" 9573. .9676
                                                                                                                                   /rpt_family="LTR3"
complement(8649. ...
                                                                                                                                                                                                                                                                                       /rpt_family="LINE2" complement(6952...6)
                                                                                                                                                                                                                                                                                                                                                 and others.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 complement(3720.
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/rpt_family="(CA)n"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /rpt_family="AluSp"
1917. .2204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /rpt_family="POLY_A"
complement(1443. .179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complement(10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens]"
                                                                                                                                                                                                                                                                                                                           complement(5599.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19 as its only human chromosome 1. .1431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /clone_lib="LL19NC032 R chromosome 19-specific cosmid" /note="cosmid library constructed at LLNL from flow-sorted chromosomes from hybrid 5HL2-B, which carries chromosome 19 as its only human chromosome."
                                                                                           /rpt_family="LINE2"
)114. .9386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   complement(10. .98)
/rpt_family="MSTC"
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/clone="R30217"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /db_xref="taxon:9606"
/chromosome="19"
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                                                                                                                                                                                                                            /rpt_family="AluSg"
                                                                                                                                                                                                                                                                                                                                                                      identity.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /cell_line="5Hl2-B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
"predicted exon, program: grail2exons human_1.3,
", quality: excellent, score: 90.000"
10758
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                                                                                                                                                         /rpt_family="AluSg"
complement(17364. .17658)
/rpt_family="""""
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RSDEWRPSFVNHSAHVGERNFTCTQGGKDFTASSDLLQQQVLNSGWKLYRDTQDGEAF
QGEQNDFNSQGGKDFCHQHGLFEHQKTHNGERPYESEGGLFRYNSHLIKYQOHA
GERPVESTEYGKTFIRKSNLVQHQKIHSEGFLSKRSDPIEHQEILSRPTPYECTQCGK
AFLTQAHLVGHQKTHTGEQPYECNKCKFFSHRSTLNMHQRVHAGKRLYKCSECGKAFSL
MDSFTLGRHQKVHTGERBPECSIGKFFSHRSTLNMHQRVHAGKRLYKCSECGKAFSL
KHNVQCHLKIHTGERPYECTECEKAFVRKSHLVQHQKIHTDAFSKRSDLIQHKRIDIR
KHNVQCHLKIHTGERPYECTECEKAFVRKSHLVQHQKIHTDAFSKRSDLIQHKRIDIR
    /rpt_family="(TAA)n"
complement(18051. .18348)
                                                                                           /rpt_family="MER7B"
complement(17853. ...
                                                                                                                                                                                                                                                                                                                                                                                                          /rpt_family="AluSx"
complement(15566...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="DPS similarity to (U66561) kruppel-related finger protein [Homo sapiens] (418. .473)."
14366 .15116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KLIIHQRVHTGEKPYECSNCGKFLRYRSTFIKHHKVCTGEKPHECSKCRELFRTKSSLIHIIHQQSHTGESPFKLRECGKDFNKCNTGQRQKTHTGERSYECGESSKVFKYNSSLIKHQIIHTGKRP"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRPYTCSECGKAFLTQAHLVGHQKIHTGERPYECTQCAKAFVRKSHLVQHEKIHTDAF
SKRSDLIQHKKIDLRPRPYVCSECGKAFLTQAHLDGHQKIQTGERRYECNECGKFFLD
SYKLVIHQRIHTGEKPYKCSKCGKFFRYRCTLSRHQKVHTGERPYECSECGKFFRDSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (12973. .15108) predicted exon, program: grail2exons_human_1.3, frame: 0, quality score: 87.000" 13033. .15108
                                                                                                                                                                                                                                                                       /rpt_;
16256
                                                                                                                                                                                                                                                                                                                complement(16055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="DPS similarity to (U66561) ki
finger protein [Homo sapiens] (474.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14147. .14314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /rpt_family="AluSg"
11041. .11377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="DPS similarity to (U66561) kruppel-related
finger protein [Homo sapiens] (250. .417).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /product="R30217_1"
/protein_id="AAB97932.1"
/db_xref="GI:2822143"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                grail2exons_human_1.3, frame:
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11448. .11576
                                                    18024.
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                                                                                                                                                                                                                                                                                                                                       /rpt_family="MER1B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                       finger protein [Homo
15272. .15565
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/note="DPS similarity to (U66561) kruppel-related zinc
finger protein [Homo sapiens] (45. .63); 26% identity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="DPS similarity to (U66561) kruppel-related zinc
finger protein [Homo sapiens] (1. .43); 48% identity.-Other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /codon_start=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="hypothetical ZNF-like protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="DPS similarity to (U66561) kruppel-related zinc finger protein [Homo sapiens] (64. .249).-Other overlapping
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3592.
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                                                                                                                                                                                                                                                                         _family="L1MB3"
6. .1706'
                                                                                                                                                                                                                                                                                                                                                                _family="L1MB3"
1, .16027
                                                                                                                                    _family="Alusg"
}: .17840
                                                  family="L1MB3"
. .18050
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (U66561) kruppel-related zinc iens] (474. .726)."
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Evans, G.A., Athanasiou, M., Aguayo, P., Armstrong, D., Basit, M., Buettner, J., Butler, C., Card, P., deSailboat, F., Dunn, J., English, C., Ethridge, S., Garner, H.R., Gee, V., Gordon, M., Gotway, G., Grant, O., Hahner, L., Joslin, J., Lewis, E., Loo, H., Loo, K.N.,
                                                                                                           Submitted (10-OCT-1998) Genome Science & Technology Center, University of Texas Southwestern Medical Center, 5323 Harry Hines Blvd, Dallas, TX 75235-8591, USA
                                                                                                                                                                                              Evans, G.A., Athanasiou, M., Aguayo, P., Armstrong, D., Basit, M., Buettner, J., Butler, C., Card, P., deSailboat, C., Dunn, J., English, C., Ethridge, S., Garner, H.R., Gordon, M., Grant, O., Hahner, L., Joslin, J., Lewis, E., Loo, H., Loo, K. N., Major, T., McFarland, J., Newton, J., Osborne-Lawrence, S., Schageman, J., Schultz, R.A., Stimson, S., Wagner, N., Waller, K. and Ward, T.
                                                                                                                                                                                                                                                                                                                                                                              Evans, G.A., Athanasiou, M., Aguayo, P., Armstrong, D., Basit, M. Buettner, J., Bumeister, R., Card, P., deSaliboat, F., Dunn, J., English, C., Ethridge, S., Garner, H. R., Gee, V., Gordon, M., Got Grant, O., Hahner, L., Joslin, J., Lewis, E., Loo, H., Loo, K. N., Major, T., McFarland, J., Newton, J., Osborne-Lawrence, S., Schageman, J., Schultz, R.A., Stimson, S., Syed, M. and Ward, T. HTGS Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        complete sequence.
AC005807
AC005807.1 GI:3935210
                                                                                                                                                                                Direct Submission
                                                                                                                                                                                                                                                                                                                                                       Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus 1 (bases 1 to 65870)
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Mus musculus chromosome 17 BAC
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complement(23254. 23400)
/rpt_family="LIME"
complement(23254. 23400)
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complement(21402. .21590)
/rpt_family-""
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/rpt_family="L1M83"
19980. .20439
/note="DDS similarity to N20479 yx39g09.s1 Homo sapiens cDNA clone 264160 3'. Score: 900 Identity: 455/460 (98%)."
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21846
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complement/>>>"
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complement/>>>>>
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complement/21000
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complement(20832. .2)
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6, .22100
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80.0%;
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Pred. No. 3.5e+02;
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                                                                    CCE 1 (bases 1 to 188563)

CCE 1 (bases 1 to 188563)

RS Muzny, D.M., Adams, C., Adio-Oduola, B., Ali-osman, F.R., Allen, C., Arallen, C., Arallen, C., Arallen, C., Arallen, C., Arallen, C., Allen, C., Arallen, C., Arallen, C., Arallen, C., Arallen, C., Allen, C., Arallen, C., Allen, C., Arallen, C., Allen, C., Arallen, C., Allen, C., Coyle, M.D., Dathorne, S.R., David, R., David, R., David, R., David, R., David, C., Coyle, M.D., Dathorne, S.R., David, R., David, R., Delaney, K.R., Delgado, O., Denn, A. L., Ding, Y., Dinth, H.H., Douthwalte, K.J., Draper, H., Dugan-Rocha, S., Durbin, K.J., David, R., Delgado, D., Edwards, C.C., Elhaj, C., Escotto, M., Earnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Falls, T., Ferraguto, D., Edwards, C.C., Elhaj, C., Escotto, M., Earnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Falls, T., Garza, M., Gill, R., Gorrell, J.H., Guevara, W., Gunaratne, P., Hale, S., Almeliton, K., Hernandez, J., Hogues, M., Holloway, C., Hollins, B., Jacobson, B., Jia, Y., Johnson, R., Jolivet, S., Joudah, S., Landry, R., Landry, N., Leal, B., Lewis, L., L., Lidhtarge, O., Lieu, C., Lieu, J., Liu, W., Loulseged, H., Lozado, R. J., Lu, X., Lucier, A., Lucier, R., Luna, R., Martinez, E., Massey, E., Mawhiney, E., McLeot, M.P., Maador, M., Meis, G., Metzker, M., Massey, E., Mawhiney, E., McLeod, M.P., Maador, M., Martinez, E., Massey, E., Mawhiney, E., McLeod, M.P., Maador, M., Maylen, A., Martinez, E., Potkens, R., Pothus, E., Pothus, S., Oguh, M., Okwuonu, G., Oragunye, N., Voiedo, R., Pace, A., Payton, B., Peery, J., Perez, L., Peters, M., Royas, A., Royubokan, I., Rolfe, M., Ruiz, S., Savery, G., Scherer, S., Scott, G., Shen, H., Shoshtari, N., Sisson, I., Sutton, A., Tand, P., Tamerisa, A., Tand, H.,
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Sutton,A., Svatek,A., Tabor,P., Tamerisa,A., Tamerisa,K., Tansey,J., Taylor,C., Taylor,T., Telfrod,B., Thomas,N., T Usmani,K., Vasquez,L., Vera,V., Villalon,D., Vinson,R., W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens chromosome 3p clone RP11-474M18, WORKING SEQUENCE, 28 unordered pieces.

AC107025
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HTG; HTGS_PHASE1; HTGS_DRAFT.
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80.0%;
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   Thomas, N., Thomas, S., Vinson, R., Wall, R.,
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findPhrapList
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On Jan 31, 2002 this sequence version replaced gi:18141444.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (14-JAN-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
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Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently consists of 28 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as
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be preserved.
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                                                                                                                106835
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Center code: BCM
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Birren, B., Linton, L., Nusbaum, C., Lander, E., Abraham, H., Allen, N., Anderson, S., Baldwin, J., Barna, N., Bedd, F., Boguslavkiy, L., Boukhgalter, B., Brown, A., Burkett, G., Campopiano, A., Castle, A., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Dodge, S., Domino, M., Doyle, M., Pernestor, J., Ferreira, P., FitzHugh, W., Forrest, C., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Goyette, M., Graham, L., Grandrier, P., Grant, G., Hagos, B., Heaford, A., Hotton, L., Grandrier, P., Grant, G., Hagos, B., Heaford, A., Hotton, L., Howland, J.C., Iliev, T., Johnson, R., Jones, C., Kann, L., Karatas, A., Klein, J., Landers, T., Largocque, K., Lehoczky, J., Levine, R., Lieu, C., Liu, G., Locke, K., Macdonald, P., Marquis, N., McCarthy, M., McC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens chromosome 1 clone RP11-474M18 map 1, SEQUENCE, 12 unordered pieces. AC023547
                                                                                                                                                                                                                                                                                                                   Unpublished
                                                                                                                                                                                                                                                                                                                                              Birren, B., Linton, L., Nusbaum, C. Homo sapiens chromosome 1, clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
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138794: contig of 2778 bp
138894: gap of unknown le
144037: contig of 5143 bp
144137: gap of unknown le
146447: gap of unknown le
150379: contig of 3932 b
150479: gap of unknown l
154510: gap of unknown l
154510: gap of unknown l
154610: gap of unknown l
157925: contig of 3315 b
158025: gap of unknown l
160712: contig of 2687 k
160812: gap of unknown l
160712: gap of unknown l
163479: contig of 2687 k
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (15-FEB-2000) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, Ma 02141, USA On May 25, 2000 this sequence version replaced gi:7331465. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             zody, M.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NOTE: This is a 'working draft' sequence. It currently consists of 12 contigs. The true order of the pieces is not known and their order in this sequence record is
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Center clone name: 474_M_18
Summarv Station:
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Contact: sequence_submissions@genome.wi.mit.edu
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101334 132080: conti
132081 132180: gap of
132181 178415: conti
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1731 1830: gap of 100 bp
1831 4407: contig of 2577 bp in length
4408 4507: gap of 100 bp
4508 9349: contig of 4842 bp in length
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4508 9349: contig of 4842 bp in length
9350 9449: gap of 100 bp
9450 15955: contig of 6506 bp in length
                                                     /organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="1"
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                                                                                                                                                                  JOURNAL REFERENCE
                                                                                                                                                                                                                                                                                                                                  VERSION
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                                                           FEATURES
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Matches 22
                                                                                                                                      TITLE
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22; Conserv
                                                                                    Submitted (28-JAN-1998) Yuichi Endo, Fukushima Medical College, Dept. of Biochemistry; 1-Hikarigaoka, Fukushima-shi, Fukushima 960-11, Japan (E-mail:yendo@cc.fmu.ac.jp, Tel:81-245-48-2111,
                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens MASP gene
                                                                                                                                   Direct Submission
                                                                                                                                                                Unpublished (1998)
2 (bases 1 to 3194)
                                                                                                                                                                                                                                                                                                                                    MASP;
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AB010822
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                                                                                                                                                                                                            Molecular evolution of mannose binding protein-associated serine
                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                     Homo sapiens DNA, clone_lib:lamda FIX II clone:F419
                                                                                                                                                                                                                                                                                                                                                                                                            AB01082S01
                                                                                                                                                                                                 protease (MASP)
                                                                          ax:81-245-48-6760)
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132181. .178415
/note="assembly_fragment"
. 31444 c 30146 g 55546 t
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4508. .9349
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/clone_lib="RPCI-11 Human
1. .1730
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57250. .76223
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/db_xref="taxon:9606"
/clone="F419"
                                                         Location/Qualifiers
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1831. .4407
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for mannose
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                            polyA_site
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18.2 kDa oleosin; membrane protein.

Gossypium hirsutum (strain Coker 201) DNA.

Gossypium hirsutum

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheor
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;

Rosidae; eurosida: I; Malvales; Malvaceae; Gossypium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COTOLEOC 4943 bp DNA linear Gossypium hirsutum 18.2 kDa oleosin (MatP6-A) gene, L00936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 (bases 1 to 4943)
Hughes, D. W., Wang, H.Y. and Galau, G.A.
Cotton (Gossypium hirsutum) MatP6 and MatP7 oleosin
Plant Physiol. 101, 697-698 (1993)
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23; Conservative
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2379. .2433
/gene="MASP"
                                                                                                                                          /codon_start=1
/product="18.2 kDa oleosin"
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/protein_id="AAA18525.1"
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AVLTLLPIGGTLLALAGLTLAGTVIGLMLATPLFIIFSPVLVPAAIAIAMAVTGFLSS
GAFGLTGLSSLSYVLNRLRYATGTEQLDLDHAKRRVQDMTEYVGQKTKEVGQKIENKA
                                                                                                                                                                                                                                                                                                                                             /gene="MatP6-A" 3265. .4067
                                                                                                                                                                                                                                                                                                                                                                                                                       /dev_stage="embryos, 20-23 days postanthesis (preendoreduplication) cotyledon" 3265. .3348
                                                                       /gene="MatP6-A"
/note="putative"
4042...4047
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2379. .2428
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                                          'note="putative"
                                                         /gene="MatP6-A"
                                                                                                                                    HEGQVGRT"
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                                                                                                                                                                                                                                                                                     /gene="MatP6-A"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Gossypium hirsutum"
/strain="Coker 201"
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/evidence=experimental
               /gene="MatP6-A"
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82.1%;
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                                                                                                                      Muzny, D.M., Addio-Oduola, B., Ali-osman, F.R., Allen, C., Alsbrooks, S.L., Amaratunge, H.C., Are, J.R., Banks, T., Barbaria, J., Benton, J., Blange, K., Blankenburg, K., Bonian, D., Bouck, J., Benton, J., Blange, K., Elankenburg, K., Bonian, D., Bouck, J., Bowie, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., Blurch, C., Carron, F.F., Carter, M., Cavazos, S.R., Chacko, J., Chavez, D., Chen, G., Chen, R., Chox, D.J., Christopoulos, C., Cleveland, C.D., Cox, C., Coyle, M.D., Dathorne, S.R., David, R., Davila, M.L., Davis, C., Davy-Carroll, L., Dederich, D.A., Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Douthwaite, K.J., Draper, H., Dugan-Rocha, S., Durbin, K.J., Earnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Falls, T., Ferraguto, D., Flagg, N., Ford, J., Foster, P., Frantz, P., Galsi, A., Gao, J., Garcia, A., Garner, T., Garza, N., Gill, R., Gorrell, J.H., Douthwaite, K.J., Draper, H., Dugar, N., Ford, J., Foster, P., Frantz, P., Gabisi, A., Gao, J., Garcia, A., Garner, T., Garza, N., Gill, R., Gorrell, J.H., Guevara, W., Gunarathe, P., Hale, S., Hamilton, K., Harris, C., Harris, K., Hart, M., Haylak, P., Hawes, A., Hernandez, O., Hodgson, A., Houges, M., Holloway, C., Hollins, B., Homsl. F., Howard, S., Huber, J., Hulyk, S., Hume, J., Juckson, B., Jia, Y., Johnson, R., Jolivet, S., Joudah, S., Kartson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C., Kratovic, J., Kureshi, A., Landry, N., Leal, B., Lewis, L.C., Louis, L., Li, J., Li, Z., Lichtarge, O., Lieu, C., Liu, J., Liu, W., Louiseged, H., Lozado, R.J., Lun, J., Martinde, A., Martinde, A., Martinde, R., Mosenkwo, S., Outher, A., Mucher, S., Martinde, T., Stocht, G., Shen, H., Shooshtari, N., Martinde, T.
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Submitted (12-OCT-2001) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One
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                                         Direct Submission
                                                          Worley, K.C
                                                                                           Unpublished
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Mammalia; Eutheria; Rodentia;
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(see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html)
NOTE: This sequence may represent more than one clone.
NOTE: This is a 'working draft' sequence. It currently
consists of 57 contigs. The true order of the pieces
is not known and their order in this sequence record is
arbitrary. Gaps between the contigs are represented as
runs of N, but the exact sizes of the gaps are unknown.
This record will be updated with the finished sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              as soon as it is available and the accession number will be preserved.
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in candida albicans
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                  Genetics 155 (1),
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Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /dev_stage="adult"
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/clone_lib="CGI-1"
/clone="157d11"
a 69 c 91 g
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                                                                                                                                                                                                                                           albicans repressed by
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Homo sapiens"
/db_xref="taxon:9606"
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                                                                                                                                                                                            GI:9963983
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Pred. No. 8.2e+02;
0; Mismatches 4;
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ed by TUP1
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                                                                                                    Saccharomycotina; Saccharomycetes; Saccharomycetales; Candida.
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                                                   contributions
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2 (RBT2) gene, complete
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                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 64116)
Birren,B., Linton,L., Nusbaum,C. and Lander,E. Homo sapiens chromosome 17, clone RP11-158C19
                                                                                                                                                                                                                                             Homo sapiens chromosome SEQUENCE SAMPLING. AC107940
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Braun, B.R., Head, W.S., Wang, M.X. and Johnson, A.D.
Identification and characterization of TUP1-regulated genes in
Candida albicans
Genetics 156 (1), 31-44 (2000)
                    Unpublished
                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                 AC107940
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Direct Submission
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(bases 1 to 64116)
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GVFHALIPTRLESILVVAWEIMALIMNLTNYVHYKPNYIWPGKSNELGRKIADRYGQI
SMWLMPPLYFAGRNNFMQWVSGWPYARFYYIKKMISRYPYMMSIAHGWHYNGKGI
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PFPGGHAFIHEMRPTCFWQSHFFTIVDSYTESNTITFYIKVKGGMTHGLYQYLAQQPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /product="repressed by TUP1 protein 2"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QTAQTKVS1EGPYGNRMAIDRFENDVF1AGGNG1PG1YYEATD1AKRLGEKRNVKLYW
VVRHYRSLEWFYQELLKLKDLP1STTVYVTQPNVGLADP1TTDLTDDEEQQEHEQEKK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="ferric reductase; contains a predicted signal
sequence and six transmembrane segments; similar to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RKSVVDNLSNSNHRVELFEQMQNW"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (24-JAN-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA All repeats were identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997)
http://ftp.genome.washington.edu/RM/RepeatMasker.html
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Brown, A., Camarata, J., Campopiano, A., Chang, J., Chazaro, B.,
Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cook, A.,
Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S.,
Ferreira, P., Fitzhugh, W., Gage, D., Galagan, J., Gardyna, S.,
Ginde, S., Goyette, M., Graham, L., Grand-Pherre, N.,
Ginde, S., Goyette, M., Iliev, I., Johnson, R., Jones, C.,
Hagos, B., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sequencing reads that have not been assembled into contigs. Runs of N are used to separate the reads and the order in which they appear is completely arbitrary. Low-pass sequence sampling is useful for identifying clones that may be gene-rich and allows overlap relationships among clones to be deduced. However, it should not be assumed that this clone will be sequenced to completion. In the event that
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------ Project Information
Center project name: L24031
Center clone name: 158_C_19
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835 1558: cc
1559 1658: gap of
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4860: contig of 727 bp
861 4960: gap of 100 bp
78 5777: contig of 717
78 5777: gap of
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7331:
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                                                                                                              8168: contig of 737 b
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                                                                                                                                                                                                                                   5677: contig of 717 bp in length 71: gap of 100 bp 6500: contig of 723 bp in length 0: gap of 100 bm 7331.
                                                                                                                                                                                                                                                                                                                                                                                                                                       00: gap of
4033: con
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gap of 100 km
                   yap of 100 bp 14: contig of 726 bp in ap of 100 bp 6: contig of 712 bp in 1 p of 100 bm
contig
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contig of 724 bp in length
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20561 20660: gap of 100 bp 10661 21390: contig of 730 bp in length 21391 21490: gap of 100 bp 21491 22218: contig of 728 bp in length 22219 22318: gap of 100 bp 22319 23019: contig of 701 bp in length 23020 23119: gap of 100 bp 23836: contig of 717 bp in length 23120 23836: contig of 717 bp in length 23837 23936: gap of 100 bp 24657: contig of 721 bp in length 23937 24657: contig of 721 bp in length 24658 24757: gap of 100 bp 24658 24757: gap of 100 bp 25658 25549: gap of 100 bp 26683: contig of 692 bp in length 25658 25683: contig of 692 bp in length 25658 25
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100 bp
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30517: gap of 100 bp
31233: contig of 716 bp in 1e
31333: gap of 100 bp
32052: contig of 719 bp in 1er
2152: gap of 100 hr
32057: 100 hr
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2 (bases 1 to 110129)

2 (bases 1 to 110129)

DDE Joint Genome Institute.

Direct Submission

Submitted (03-AUG-1999) Production Sequencing

Submitted (03-AUG-1999) Mitchell Drive, Walnut
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Homo sapiens chromosome 16 clone CTD-2343L5,
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 110129)
DOE Joint Genome Institute and Stanford Human Genome Center.
                                                                                                                                                                         Genome Institute, 2800 Mitchell Drive, Walnut 3 (Dases 1 to 110129)
DOE Joint Genome Institute and Stanford Human Direct Submission
                                                                                                                           Submitted (27-JUN-2001) DOE Joint Genome Institute,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    human.
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37 51136: gap of 100 bp
37 51668: contig of 732 bp in 1
69 51968: gap of 100 bp
69 52662: contig of 694 bp in 1
63 52762: gap of 100 bp
63 52762: gap of 1728 bp in 1
63 52762: contig of 728 bp in 1
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45266: con
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50216: contig of 717 bp
316: gap of 100 bp
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47747: contig of 749 bp in
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44436: c
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is contig of 736 bp in a
ap of 100 bp
is contig of 702 bp in 1
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contig of 719 bp in lap of 100 bp:
contig of 718 bp in lap
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contig of 733 bp in
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Submitted (24-JUL-1998) The Institute for Genomic Research, Medical Center Dr., Rockville, MD 20850, USA
                                                                                                                                                                                                                                                                                                           Adams,M.D., Loftus,B.J., Zhou,L., Crosby,M., Fuhrmann,J., Mason,T.M., Brandon,R., Kim,U.J., Kerlavage,A.R. and Venter,J.C. Homo sapiens Chromosome 16 BAC clone CIT987SK-A-761H5
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Quality: Phrap Quality >=40 99.9% of Sequence;
Estimated Total Number of Errors is 0.1.
                                                     Direct Submission
                                                                          Adams, M.D. and Loftus, B.J.
                                                                                                                           mdadams@tigr.org
                                                                                                                                                   Medical Center Dr.,
                                                                                                                                                        Submitted (12-SEP-1997) The Institute for Genomic Research, Medical Center Dr., Rockville, MD 20850, USA, Email:
                                                                                                                                                                                                           Direct Submission
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Adams, M.D. and Loftus, B.J.
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Finishing Completed at Stanford Human Genome Center
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DOE Joint Genome Institute and Stanford Human Genome
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.6e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        On Jul 24, 1998 this sequence version replaced gi:2959563. Address all correspondence to: Mark Adams The Institute for Genomic Research 9712 Medical Center Dr. Rockville, MD 20850, USA e-mail address: humgen@tigr. The orientation of the sequence is from SP6 end to T7 end. Genes were identified by a combination of five methods including: XGRAIL (available by anonymous ftp from arthur.epm.ornl.gov), Genefinder (Phil Green, University of Washington), Genscan (Chris Burge,
                                                                                                                                                                                                                                                                                                         QNPEQSADEDAEKNEEDSEGSSDEDEDEDGVSAATFLKKKSEAPSGESRKFLKKMDDE
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.144769))
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Waterston,R.H.
Direct Submission
Submitted (30-AUG-2001) Genome
University School of Medicine,
MO 63108, USA
                                                                                                                       Direct Submission
Submitted (01-SEP-2001) Genome
University School of Medicine,
Submitted (08-SEP-2001) Genome University School of Medicine,
                                          Waterston, R.H.
Direct Submission
                                                                                                                                                                                           5 (bases 1 to 166719) Waterston, R.H.
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Submitted (28-APR-2000) Genome Sequencing Center, Washington
University School of Medicine, 4444 Forest Park Parkway, St.
MO 63108, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished (2001) 3 (bases 1 to 16)
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a 38891 c 38211 g 37878 t 59 others
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ADILFTLVIKLLAPLGLHLLPYSPRVLVSGICAAGSFYLVAFSHSVGTSLCGVVFASI
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IPALLLASYFLLLTSPEAQDPGGEEEAESAARQPLIRTEAPESKPGSSSSLSLRERWT
VFKGLLWYIVPLVVVYFAEYFINQGLFELLFFWNTSLSHAQQYRWYQMLYQAGVFASR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /gene="A-761H5
/codon_start=1
                                                                                        to 166719)
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Pred. No. 7.6e+02;
0; Mismatches 4
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  Sequencing Center, Washing 4444 Forest Park Parkway,
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FEATURES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The RPCI-11 human BAC library was made from the blood of one male donor, as described by Osoegawa,K., Woon,P.Y., Zhao,B., Frengen,E., Tateno,M., Catanese,J.J. and de Jong,P.J. (1998) An improved approach for construction of bacterial artificial chromosome libraries. Genomics 51:1-8. The clone may be obtained either from Research Genetics, Inc. (http://www.resgen.com) or Pieter de Jong and Coworkers at the Roswell Park Cancer Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This sequence was finished as follows unless otherwise noted: all regions were double stranded, sequenced with an alternate chemistry, or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by sequence from more than one subclone; and the assembly was confirmed by restriction digest.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NOTICE: This sequence may not represent the entire insert of this clone. It may be shorter because we only sequence overlapping clone sections once, or longer because we provide a small overlap between neighboring data submissions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (09-JAN-2002) Department of Genetics, Washington University, 4444 Forest Park Avenue, St. Louis, Missouri 63108, On Aug 30, 2001 this sequence version replaced gi:13570009.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence derived from pcr from base Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NEIGHBORING SEQUENCE INFORMATION: Actual start of this clone is at base actual end is at base position 166719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mapping information for this clone was provided by Dr. John D. McPherson, Department of Genetics, Washington University, St. Louis MO. For additional information about the map position of this
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOURCE INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sequence, see http://genome.wustl.edu/gsc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MAPPING INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Web site: http://genome.wustl.edu/gsc
Contact: sapiens@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Center: Washington University Genome Sequencing Center Center code: WUGSC
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                                                                                                                                                                                                                                                                                                                                                               1074.
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9133...9291
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/note="similar to E
14518. .14703
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                                                                                                                                                                                                                /note="similar to 13326. .13674
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10299.
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                                       AI138580 (NID:g3644552) qd85b12.x1*
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Maximum Match 99%
Listing first 45 summaries
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3: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1983.DAT:*

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Copyright (c) 1993 - 2000 Compugen Ltd.
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VEGF-B112 coding s
cDNA clone encodin
Adult heart VEGF-B
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VEGF-B186 coding s
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## ALIGNMENTS

AAT33613 RESULT

AAT33613 standard; cDNA; 910

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30-NOV-1996

(first entry)

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    22-DEC-1995;
02-MAR-1995;
20-NOV-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3 CDNA clones (AAP33611-13) code for splice variants (AAW00726-28) of the human vascular endothelial growth factor-like polypeptide SOM175 (see also AAW00725). They were identified in a human foetal spleen library and respectively lack exon 6, exons 6+7, and exon 4 of the SOM175 gene (see also AAT33610). The CDNA clones can be used to produce recombinant SOM175 proteins that are useful for inducing astroglial proliferation and for promoting neural survival
         Disclosure;
                            New human gene encoding vascular endothelial growth factor 3 and polypeptide encoded by the gene is useful for treating various disorders associated with vascular and lymphatic system -
                                                                                                                                             10-AUG-1998;
10-FEB-1999;
                                                                                                                                                                                                                         WO200009148-A1.
                                                                                                                                                                                                                                                                                                                                      19-JUN-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              factor related to vascular endothelial growth factor - inducing astroglial proliferation and promoting neuronal
       Page 137; 209pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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99US-0244694.
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Best Local S
Matches 27
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01-MAR-1995;
06-JUN-1995;
                                               Vascular endothelial growth factor VEGF-B proteins - useful to accelerate angiogenesis in wound healing, also related nucleic and antibodies for cancer diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                          Endothelial cell; proliferation; vascular endothelial growth factor; VPF; VPGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration; vascular permeability factor; cell mitogen; angiogenesis; cell growth; embryonic development; wound healing; tissue reorganisation; antibody; cancer; metastatic risk; tumour cell; mouse; ss.
                                                                                                                                WPI; 1996-412582/41.
                                                                                                                                                                Alitalo
                                                                                                                                                                                                                                                                                                                 01-MAR-1996;
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                                                                                                                P-PSDB;
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95US-0397651.
95US-0469427.
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Claim 1; Page 57; 107pp; English

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cDNA clone encoding vascular endothelial growth factor (VEGF)-B112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAV63566;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAV63566 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 especially useful in retarding VEGF expression in tumour cells.
                                                     WPI; 1999-034079/03
                                                                                                                                                                                                                                                                                                                                                                                                                                   24-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               278 ctgggqaacaccaagtccgaatgcagatcc
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                                                                                                        ζ,
                                                                                                                                                             UNIV HELSINKI LICENSING
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                                                                                                          Eriksson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                         96US-0609443.
95US-0397651.
95US-0469427.
95US-0569063.
                                                                                                                                                                                                                                                                                                                                                                             96US-0609443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers 4..405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /product= VEGF-B112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDNA;
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93.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 405
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 26.8;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120 G; 79
                                                                                                                                                             LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tissue growth; organ repair;
                                                                                                        'n
                                                                                                                                                             OY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     307
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                                                                                                          Pajusola
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local :
                                                                                                                                                                                                 06-DEC-1995;
01-MAR-1995;
06-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present sequence encodes murine vascular endothelial growth factor (VEGF) B112. VEGF proteins are used for promoting proliferation of endothelial cells and for stimulating angiogenesis (the proliferation of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as angiogenesis is required by tumours as they need
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Vascular endothelial growth factor-B iso:forms, and DNA encoding them - useful for inducing angiogenesis and cellular proliferational raising antibodies to inhibit activities in e.g. tumours
                                               Vascular endothelial growth factor VEGF-B accelerate angiogenesis in wound healing, and antibodies for cancer diagnosis
                                                                                                                                                                                                                                                                                                                                                      vascular permeability factor; cell mitogen; angiogenesis; cell
embryonic development; wound healing; tissue reorganisation; ar
cancer; metastatic risk; tumour cell; mouse; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                  Adult heart VEGF-B167 coding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAT37910;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAT37910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 22;
                                                                                                WPI; 1996-412582/41.
P-PSDB; AAW04826.
                                                                                                                                                                                                                                                     01-MAR-1996;
                                                                                                                                                                                                                                                                             06-SEP-1996
                                                                                                                                                                                                                                                                                                      W09626736-A1
                                                                                                                                                                                                                                                                                                                             Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                        Endothelial cell; proliferation; vascular endothelial growth factor; VPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                new blood supplies to grow
                       Claim 1;
                                                                                                                                      Alitalo
                                                                                                                                                            (LUDW-) LUDWIG INST CANCER RES (UYHE-) UNIV HELSINKI LICENSING
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                                                                                                                                                                                                                                                                                                                                                                                             endothelium;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard;
                       Page 54-55; 107pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                      Eriksson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BP;
                                                                                                                                                               HELSINKI LICENSING
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7; 52pp; English.
                                                                                                                                                                                                 95US-0569063.
95US-0397651.
95US-0469427.
                                                                                                                                                                                                                                                     96WO-US02957
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cDNA;
                                                                                                                                                                                                                                                                                                                                                                                             mesodermal cell;
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93.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                  sequence
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Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ВP
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                                                                                                                                                               LTD OY.
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                                                                                                                                                                                                                                                                                                                                                                                             cationic dimer; tissue regeneration;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        79 T;
                                                                                                                                      Pajusola
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.047;
                                                            proteins
also rela
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                                                             related
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                                                                         useful
                                                             seful to
nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   405;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                             acid
                                                                                                                                                                                                                                                                                                                                                                                 growth;
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AAT37909-T37915 represent the coding sequences

for the vascular

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RESULT
AAV63564
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cc endothelial or mesodermal cell proliferation. VEGF is also a
cc glycosylated cationic dimer, and is sometimes referred to as vascular
cc permeability factor (VPF). VEGF has diverse effects, depending on the
cc specific biological context in which it is found. VEGF is a potent
cc endothelial cell mitogen, and directly contributes to induction of
cc angiogenesis in vivo by promoting endothelial cell growth during normal
cc embryonic development, wound healing, and tissue
cc regeneration/reorganisation. The VEGF proteins of the invention share
cc the angiogenic and other properties of VEGF, but are distributed and
cc expressed in tissues differently to VEGF. The proteins can therefore be
cc used to accelerate angiogenesis in wound healing. Antibodies against the
cc proteins can be used for inhibiting angiogenesis. The antibodies can
cc also be used diagnostically to quantitatively detect VEGF-B. Primers
cc complementary to the coding sequences for the proteins of the invention
cc can also be used to detect VEGF-B coding sequences. Quantification of
cc VEGF-B in cancer biopsy specimens may be useful as an indicator of
cc metastatic risk. VEGF-B expression in a cell can be retarded using
cc antisense sequences direct against the VEGF coding sequences, this is
cc especially useful in retarding VEGF expression in tumour cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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Best Local
                                                                                                                                                                  (LUDW-)
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01-MAR-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Vascular endothelial growth factor; VEGF; proliferation; mouse; endothelial cell; angiogenesis; tissue growth; organ repair; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cDNA clone encoding vascular endothelial growth factor (VEGF)-B167
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                        P-PSDB;
                                                         WPI; 1999-034079/03
                                                                                                               Alitalo K,
                                                                                                                                                                                                                                                         06-JUN-1995;
06-DEC-1995;
                                                                                                                                                                                                                                                                                                                                                                                                          01-MAR-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                24-NOV-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 273
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                           AAW80490
                                                                                                                                                                  LUDWIG INST CANCER RES.
UNIV HELSINKI LICENSING LTD
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                                                                                                               Eriksson
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95US-0397651.
95US-0469427.
95US-0569063.
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/transl_except= (po
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93.3%;
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                                                                                                               Olofsson
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Pred.
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                                                                                                               Pajusola K;
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Best Local 9
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01-MAR-1995;
06-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence encodes murine vascular endothelial growth factor (VEGF)-B167. VEGF proteins are used for promoting proliferation of endothelial cells and for stimulating angiogenesis (the proliferation of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repears that the second control of the second contro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vascular endothelial growth factor-B iso:forms, and DNA encoding them - useful for inducing angiogenesis and cellular proliferation, and raising antibodies to inhibit activities in e.g. tumours
                                                                               Vascular endothelial growth factor VEGF-B accelerate angiogenesis in wound healing, and antibodies for cancer diagnosis
                                                                                                                                                                                                                                                                                      (LUDW-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Endothelial cell; proliferation; vascular endothelial growth factor; VPF VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration; vascular permeability factor; cell mitogen; angiogenesis; cell growth; embryonic development; wound healing; tissue reorganisation; antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as angiogenesis is required by tumours as they need
                                       Claim 1;
                                                                                                                                                                                                    WPI; 1996-412582/41.
                                                                                                                                                                                                                                              Alitalo K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAR-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VEGF-B186
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     metastatic
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                                       Page 60;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fig
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                                                                                                                                                                                                                                              Eriksson
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95US-0397651.
95US-0469427.
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                                     107pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     risk;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     wound healing;
k; tumour cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           624
                                                                                                                                                                                                                                              Olofsson B,
                                       English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
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Pred. No. 0.05
0; Mismatches
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                                                                                                                                                                                                                                              Pajusola
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mouse; ss
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                                                                                                             nucleic
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AAT37909-T37915 represent the coding sequences for the vascular

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RESULT
AAV63568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cc endothelial growth factor (VEGF) proteins of the invention, which promote cc endothelial or mesodermal cell proliferation. VEGF is also a cc glycosylated cationic dimer, and is sometimes referred to as vascular cc permeability factor (VPF). VEGF has diverse effects, depending on the cspecific biological context in which it is found. VEGF is a potent cell endothelial cell mitogen, and directly contributes to induction of can anylogenesis in vivo by promoting endothelial cell growth during normal cell embryonic development, wound healing, and tissue cregeneration/reorganisation. The VEGF proteins of the invention share ct the angiogenic and other properties of VEGF, but are distributed and cexpressed in tissues differently to VEGF. The proteins can therefore be used to accelerate angiogenesis in wound healing. Antibodies against the proteins can be used for inhibiting angiogenesis. The antibodies can calso be used diagnostically to quantitatively detect VEGF-B. Primers complementary to the coding sequences for the proteins of the invention can also be used to detect VEGF-B coding sequences. Quantification of CC metastatic risk. VEGF-B expression in a cell can be retarded using cantisense sequences direct against the VEGF coding sequences, this is cespecially useful in retarding VEGF expression in tumour cells.
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Best Local S
Matches 28
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01-MAR-1995;
06-JUN-1995;
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Vascular endothelial growth factor-B iso:forms, and
                                            WPI; 1999-034079/03
P-PSDB; AAW80494.
                                                                                                                                                         (TUDW-)
                                                                                                                                                                                                                                                                                                                                           01-MAR-1996;
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                                                                                                                                                           LUDWIG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 endothelial growth factor; VEGF; proliferation; mou-
ial cell; angiogenesis; tissue growth; organ repair;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     encoding vascular endothelial growth factor (VEGF)-B186
                                                                                                              Eriksson
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                                                                                                                                                         IG INST CANCER RES
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95US-0397651.
95US-0469427.
95US-0569063.
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                                                                                                                                                         LICENSING
                                                                                                            Olofsson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VEGF-B186
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Pred.
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No. 0.051;
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                                                                                                              Pajusola
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DNA encoding
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air; ss
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growth factor

factor B (VEGF-B)
used to promote bo

discloses a use for human vascular endothelial -B) in the stimulation of angiogenesis in bone. This e bone growth, stimulate the healing of breaks or implant to the bone and to alleviate inflammation in

present

invention Page

Disclosure;

36-37; 43pp;

English

fractures,

secure

an implant

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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         them - useful for inducing angiogenesis and cellular proliferation, and raising antibodies to inhibit activities in e.g. tumours
                                                                                                          Use of a polypeptide having the biological activity of vascular endothelial growth factor-B for stimulating angiogenesis of bone, healing of bone fractures and enhancing acceptance of an implant bone
                                                                                                                                                                                                                                                                                                                                                                                  angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as anglogenesis is required by tumours as they need
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                                                                                                                                                                                                                                                                                                                                      WO200064261-A1
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                                                                                                                                                                                                                                                                                                                                                                                                Human; vascular endothelial growth factor; VEGF-B; bone growth;
                                                                                                                                                                                                                                                                                                                                                                                                                      Human vascular
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                                                                                                                                                                                                                                                               26-APR-1999;
                                                                                                                                                                                                                                                                                     26-APR-2000; 2000WO-US11096
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                                                                                                                                                                  2001-015797/02.
DB; AAB36296.
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                                                                                                                                                                                                    Kaipainen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       supplies to grow and proliferate.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fig 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                            HELSINKI LICENSING
                                                                                                                                                                                                                                                                                                                                                                                   neovascularisation; bone break; inflammation; ds
                                                                                                                                                                                                                                        INST CANCER RES
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                                                                                                                                                                                                                                                                                                                                                                                                                     endothelial growth factor VEGF-B186 coding sequence.
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93.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               213 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             es murine vascular endothelial growth are used for promoting proliferation
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               173 G;
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No. 0.
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         AAT37909;
                                                                                                                                                                                   The present invention discloses a use for human vascular endothelial growth factor B (VEGF-B) in the stimulation of angiogenesis in bone. This can be used to promote bone growth, stimulate the healing of breaks or fractures, secure an implant to the bone and to alleviate inflammation in
                                                                                                                                                                                                                                                           Use of a polypeptide having the biological activity of vascular endothelial growth factor-B for stimulating angiogenesis of bone, healing of bone fractures and enhancing acceptance of an implant
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                           AAT37909 standard;
                                                                                                                                                                                                                                  Disclosure;
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                                                                                                                      Score 26.8;
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bone break; inflammation;
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This represents a fragment of the mouse embryo vascular endothelial growth factor B (VEGF-B) protein coding sequence. The encoded proteins C (and AAW04826-W04831) represent the VEGF proteins of the invention, and C promote endothelial or mesodermal cell proliferation. VEGF is also a glycosylated cationic dimer, and is sometimes referred to as vascular permeability factor (VPF). VEGF has diverse effects, depending on the specific biological context in which it is found. VEGF is a potent condition of anylogenesis in vivo by promoting endothelial cell growth during normal embryonic development, wound healing, and tissue regeneration/reorganisation. The VEGF proteins of the invention share the anglogenic and other properties of VEGF, but are distributed and expressed in tissues differently to VEGF. The proteins can therefore be used to accelerate angiogenesis in wound healing. Antibodies against the proteins can be used for inhibiting angiogenesis. The antibodies can also be used to detect VEGF-B. In the proteins of the proteins of the proteins can also be used to detect VEGF-B. In the proteins of the proteins of the proteins can also be used to detect VEGF-B. In the proteins of the proteins of the proteins can also be used to detect VEGF-B.
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01-MAR-1995;
06-JUN-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Vascular endothelial growth factor VEGF-B accelerate angiogenesis in wound healing,
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retarded using antisense sequences direct against sequences, this is especially useful in retarding
                                                                 Quantification of VEGF-B in cancer biopsy specimens may be useful indicator of metastatic risk. VEGF-B expression in a cell can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and antibodies
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                                     VEGF-B expression in a cell can ences direct against the VEGF cod
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Query Match Best Local Similarity

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01-MAR-1995;
06-JUN-1995;
                                       The present sequence encodes murine vascular endothelial growth factor (VEGF)-B. The nucleic acid sequence is translated in two different reading frames. The proteins are used for promoting proliferation of endothelial cells and for stimulating angiogenesis (the proliferation of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as angiogenesis is required by tumours as they need new blood supplies to grow and proliferate.
                                                                                                                                                                                                                                                                                                                                                                                                                             Vascular endothelial growth factor-B iso:forms, and DNA encoding them - useful for inducing angiogenesis and cellular proliferati and raising antibodies to inhibit activities in e.g. tumours
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02-MAR-1995;
20-NOV-1995;
capable of inducing astroglial proliferation and of promoting neural survival and/or proliferation. It was obtd. from a new-born mouse brain cDNA library using SOM175 CDNA (see also AAT33610) as probe. Imprine VRF gene maps near to the centromere of chromosome 19. It is highly expressed in embryo tissue and in the heart and brown fat of adult mice. VRF169 lacks exon 6, found in VRF186 CDNA (AAT13809).
                                                                             VRF169 cDNA (AAT13810) codes for a murine homologue (AAW00864) of an alternatively spliced variant (AAW00726) of human vascular endothelial growth factor-like polypeptide SOM175 (see also AAW00725), a protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
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                                                                                                                                      Example 5; Fig 9; 113pp; English.
                                                                                                                                                                survival
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                                                                                                                                                                                                                      P-PSDB;
                                                                                                                                                                                                                                   WPI; 1996-412774/41.
                                                                                                                                                                                                                                                              Weber
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proliferation;
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95AU-0006647.
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93.3%;
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Pred. No. 0.
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RESULT 1
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02-MAR-1995;
20-NOV-1995;
      VRF186 cDNA (AAT13809) codes for the murine homologue (AAW00863) of human vascular endothelial growth factor-like polypeptide SOM175 (AAW00725), a protein capable of inducing astroglial proliferation and of promoting neural survival and/or proliferation. It was obtd. from a new-born mouse brain cDNA library using SOM175 cDNA (see also AAT33610) as probe. The murine VRF gene maps near to the centromere of chromosome 19. It is highly expressed in embryo tissue and in the heart and brown fat of adult mice. An alternatively
                                                                                                                                                                                                                                                          New growth useful for
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                                                                                                                                                                                             Fig
                                                                                                                                                                                                                                                        factor related to vascular endothelial growth factor inducing astroglial proliferation and promoting neuro
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95AU-0001457.
95AU-0006647.
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/note= "polymorphic F
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Pred. No. 0.
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                                      The invention relates to human vascular endothelial growth factor 3 (VEGF-3, AAY94802), a splice variant of human VEGF-3 (AAY94805), and nucleic acids encoding them (AAA15748, AAA15762). The cDNA encoding the country to the cDNA encoding them (AAA15748) is not present in the cDNA library. The cDNA encoding the variant VEGF-3 differs from sequence AAA15748 in the cDNA encoding the variant VEGF-3 differs from sequence AAA15748 in the cDNA encoding the variant VEGF-3 differs from sequence AAA15748 in the cDNA encoding the variant VEGF-3 differs from sequence AAA15748 in the cDNA encoding the variant VEGF-3 differs from sequence AAA15748 in the pattern being consistent with vascular and lymphatic specific expression. VEGF-3 being consistent with vascular and lymphatic specific expression. VEGF-3 cancilorating various disorders and conditions associated with the vascular and lymphatic systems. These conditions and disorders include cancer, wounds, autoimmune diseases, HIV, inflammation and heart disease. VEGF-3 may also be used to identify its own binding partners. VEGF-3 mucleotides are useful as diagnostic or prognostic markers and as an alternative to restriction fragment length polymorphism (RFLP). The nucleotides are also useful to prepare PCR primers for amplifying an isolating selected DNAs. Sequences AAA15763 A1580 represent DNA and test
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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Best Local :
                                                                                                                                                                                                                                                                                                                                          New human gene encoding vascular endothelial growth factor 3 and polypeptide encoded by the gene is useful for treating various disorders associated with vascular and lymphatic system -
                                                                                                                                                                                                                                                                                                                                                                                                    WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                Hu
                                                                                                                                                                                                                                                                                                           Disclosure; Page 137–138; 209pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                            (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-AUG-1998;
10-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-AUG-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cancer; wounds; autoimmune disease; HIV; inflammation; heart disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vascular endothelial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA encoding VEGF-3 homologue,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAA15764;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           spliced variant, VRF169 (AAT13810), was also identified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15
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                                                                                                                                                                                                                                                                                                                                                                                                                                Olsen HS,
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                           selected DNAs. Seque encoding homologues
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99US-0244694
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                                                                                                                                                                                                                                                                                                                                                                                                                                  Rosen CA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     growth factor 3; VEGF-3;
lymphatic; bone marrow;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       93
98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    lymphatic;
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Pred. No. 0.05
0; Mismatches
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                              of human VEGF-3
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                                                                                                                                                                                                                                                                                                                                        and lymphatic system
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                              from human,
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n; heart disease; ds.
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Best Query Match

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glycosylated cationic dimer, and is sometimes referred to as vascular glycosylated cationic dimer, and is sometimes referred to as vascular germeability factor (VPF). VEGF has diverse effects, depending on the specific biological context in which it is found. VEGF is a potent endothelial cell mitogen, and directly contributes to induction of cendryonic development, wound healing, and tissue regeneration/reorganisation. The VEGF proteins of the invention share the angiogenic and other properties of VEGF. but are distributed and ce expressed in tissues differently to VEGF. The proteins can therefore be used to accelerate angiogenesis in wound healing. Antibodies against the proteins can be used for inhibiting angiogenesis. The antibodies can can complementary to the coding sequences for the proteins of the invention can also be used to detect VEGF-B coding sequences. Quantification of CC metastatic risk. VEGF-B expression in a cell can be retarded using antisense sequences direct against the VEGF coding sequences, this is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-DEC-1995;
01-MAR-1995;
06-JUN-1995;
                                                                                                                                                                                                                                                                               endothelial growth factor (VEGF) proteins of the invention, which pro
endothelial or mesodermal cell proliferation. VEGF is also a
glycosylated cationic dimer, and is sometimes referred to as vascular
                                                                                                                                                                                                                                                                                                                                                                                            Vascular endothelial growth factor VEGF-B accelerate anglogenesis in wound healing, and antibodies for cancer diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Endothelial cell; proliferation; vascular endothelial growth factor; VPF VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration; vascular permeability factor; cell mitogen; angiogenesis; cell growth; embryonic development; wound healing; tissue reorganisation; antibody;
                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 56; 107pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (UVHE-) UNIV HELSINKI LICENSING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAR-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cancer; metastatic risk; tumour
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             especially useful in retarding
                                                                                                                                                                                                                                                                                                                                 AAT37909-T37915 represent the coding sequences for the vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Adult heart VEGF-B174 coding sequence.
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95US-0397651.
95US-0469427.
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100.0%;
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Best Local S
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01-MAR-1995;
06-JUN-1995;
06-DEC-1995;
                           The present sequence encodes murine vascular endothelial growth factor (VEGF)-B174. VEGF proteins are used for promoting proliferation of endothelial cells and for stimulating angiogenesis (the proliferation of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as angiogenesis is required by tumours as they need
                                                                                                                                                                        Vascular endothelial growth factor-B iso:forms, and DNA encoding them - useful for inducing angiogenesis and cellular proliferation and raising antibodies to inhibit activities in e.g. tumours
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                     Claim
                                                                                                                                                                                                                      P-PSDB; AAW80491.
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                    supplies
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cell; angiogenesis;
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95US-0469427.
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                                                                                                                                                  52pp;
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                     ៥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              vascular endothelial growth factor (VEGF)-B174.
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86.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              growth; organ repair;
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                                                                                                                                                                                    proliferation,
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Query Match

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Length 591;

Sequence

591

BP;

126

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186

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174

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105

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Best Local Similarity

Pred. No. 1.2;

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52 gggaacaccaagtccgaatgcagatcc

78

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(VEGF-3, ANA)4802), a splice variant of human VEGF-3 (ANA)4802), a splice variant of human VEGF-3 (ANA)4802), a splice variant of human VEGF-3 (ANA)4802), a splice variant vege-3 (ANA)5762). The cDNA encoding CC VEGF-3 was initially isolated from a bone marrow cell line cDNA library. CC The cDNA encoding the variant VEGF-3 differs from sequence ANA)5748 in CC that the A at position 498 in ANA)5762 is also expressed in colon, heart, kidney and ovary tissues, this pattern CC being consistent with vascular and lymphatic specific expression. VEGF-3 CC proteins and nucleotides are useful in preventing, treating or CC ameliorating various disorders and conditions associated with the CC vascular and lymphatic systems. These conditions associated with the CC cancer, wounds, autoimmune diseases, HIV, inflammation and heart CC disease. VEGF-3 may also be used to identify its own binding partners. CC VEGF-3 uncleotides are useful as diagnostic or prognostic markers and as CC an alternative to restriction fragment length polymorphism (RFLP). The CC isolating selected DNAs. Sequences ANA)5763-A15880 represent DNA CC sequences encoding homologues of human VEGF-3 from human, mouse and rat.
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                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to human vascular endothelial growth factor 3 (VEGF-3, AAY94802), a splice variant of human VEGF-3 (AAY94806), and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New human gene encoding vascular endothelial growth factor 3 and polypeptide encoded by the gene is useful for treating various disorders associated with vascular and lymphatic system -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 139-140; 209pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hu J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-AUG-1998;
10-FEB-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (HUMA-) HUMAN GENOME SCI INC
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                                              Local Similarity
nes 24; Conserv
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ggcagcaccaagtccggatgcagatcc
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99US-0244694.
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                                                                                                                             96
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                                                                                                                             A; 135 C; 123 G;
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                                                              74.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                              Score 22.2;
Pred. No. 4.
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                                                Mismatches
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                                                                                                                             69 T; 0
                                                                              DВ
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                                                                                                                             other;
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                                             Gaps
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                                             0;
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AAA15881
                                                                                                                                                                                                                                              CC (VEGF-3, AAY94802), a splice variant of human VEGF-3 (AAY94805), and concluded acids encoding them (AAA15748, AAA15762). The cDNA encoding CC nucleic acids encoding them (AAA15748, AAA15762). The cDNA encoding CC VEGF-3 was initially isolated from a bone marrow cell line cDNA library. CF he cDNA encoding the variant VEGF-3 differs from sequence AAA15748 in color, that the A at position 498 in AAA15748 is not present in AAA15762. VEGF-3 is also expressed in colon, heart, kidney and ovary tissues, this pattern being consistent with vascular and lymphatic specific expression. VEGF-3 comeliorating various disorders and conditions associated with the concentrating various disorders and conditions associated with the concentrating various disorders encoding to diseases. VEGF-3 may also be used to identify its own binding partners. CC vEGF-3 nucleotides are useful as diagnostic or prognostic markers and as alternative to restriction fragment length polymorphism (RFLP). The cultivating selected DNAs. Sequences AAA15881-A15895 represent DNA concentration and reference a
                                                                                 Matches
                                                                                                                                                                                       Sequence 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New human gene encoding vascular endothelial growth factor 3 a polypeptide encoded by the gene is useful for treating various disorders associated with vascular and lymphatic system -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-AUG-1998;
10-FEB-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hu J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (HUMA-) HUMAN
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270
                   7 agcaccaagtccggatgcagatcc
aacaccaagtccgaatgcagatcc
                                                                                 22;
                                                                                                   Similarity
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                                                                                 Conservative
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                                                                                                                                                                                         BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a homologue of VEGF-3 splice variant,
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99US-0244694.
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                                                                                                                                                                                         89
                                                                                                                                                                                       A; 105
                                                                                                     69.3%;
91.7%;
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                                                                                                       Score 20.8;
Pred. No. 17;
                                                                                                                                                                                         117
                                                                                 Mismatches
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                                                                                                                         DB
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                                                                                                                         21;
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                                                                                                                             389;
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                                                                               0;
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                                                                                 Gaps
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RESULT

20

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AAK66306

AAK66306

AAK66306

XX

XX

AC

AAKC

AAKC

AAKC

AC

AAKC

AA
31 JAN 2000
04 FEB 2000
04 FEB 2000
02 MAR 2000
16 MAR 2000
17 MAR 2000
18 APR 2000
19 MAY 2000
07 JUL 2000
08 JUL
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      immune/haematopoietic
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    2000US-0179065.
2000US-018628.
2000US-018628.
2000US-0186350.
2000US-0198123.
2000US-0198123.
2000US-0198123.
2000US-0198123.
2000US-01981686.
2000US-0116647.
2000US-0116647.
2000US-0116880.
2000US-0118290.
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      14-SEP-2000
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14-SEP-2000
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14-SEP-2000
21-SEP-2000
25-SEP-2000
25-SEP-2000
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27-SEP-2000
29-SEP-2000
29-SEP-2000
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29-SEP-2000
29-SEP-2000
20-CCT-2000
21-NOV-2000
20-CCT-2000
21-NOV-2000
20-CCT-2000
21-NOV-2000
    2000US-0232398.
2000US-0233401.
2000US-0233401.
2000US-0233063.
2000US-0233063.
2000US-0234274.
2000US-02343997.
2000US-0235484.
2000US-02353834.
2000US-02353834.
2000US-02353836.
2000US-02353836.
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2000US-02353837.
2000US-0237039.
2000US-0237039.
2000US-02441785.
2000US-02441785.
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2000US-02441787.
2000US-0244478.
2000US-0244676.
2000US-0246477.
2000US-0246477.
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2000US-0246477.
2000US-0246611.
2000US-0246528.
2000US-0246528.
2000US-0246611.
2000US-0246528.
2000US-0246528.
2000US-0249211.
2000US-0249213.
2000US-0249214.
2000US-0249213.
2000US-0249214.
2000US-0249214.
2000US-0249215.
2000US-0249218.
2000US-024928.
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PF XXX PX XXX PF XXX
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                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-DEC-2000;

05-DEC-2000;

06-DEC-2000;

08-DEC-2000;

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08-DEC-2000;

08-DEC-2000;

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08-DEC-2000;
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                                                                                              Human; immune; haematopoietic; immune/haematopoietic antigen; cancer;
cytostatic; gene therapy; vaccine; metastasis; ds.
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  17-JAN-2001; 2001WO-US01354.
                           09-AUG-2001
                                                                                                                                Human immune/haematopoietic antigen genomic sequence SEQ ID NO:21119
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                                                 WO200157182-A2
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23; Conser
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2000US-0256719.

2000US-0251479.

2000US-0251856.

2000US-0251868.

2000US-0251868.

2000US-0251989.

2000US-0251999.

2000US-0254097.

2001US-0259678.
                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                       431 A;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               human immune/hematopoietic antigen diagnosing and/or treating cancers
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Pred. No. 27;
0; Mismatches
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                                                                                                                                                                                                                                                                                                            Gaps
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  11-JUL-2000
14-JUL-2000
14-AUG-2000
12-AUG-2000
13-AUG-2000
14-AUG-2000
13-AUG-2000
14-AUG-2000
15-SEP-2000
10-SEP-2000
10-SEP-2000
10-SEP-2000
10-SEP-2000
10-SEP-2000
10-SEP-2000
11-SEP-2000
12-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-MAY-2000;
07-JUN-2000;
28-JUN-2000;
30-JUN-2000;
07-JUL-2000;
07-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31-JAN-2000;
04-FEB-2000;
24-FEB-2000;
02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0225267

2000US-0225268

2000US-0225270

2000US-0225447

2000US-0225757

2000US-0225759

2000US-0225759

2000US-0225759

2000US-0225681

2000US-0226681

2000US-0226681

2000US-0226868

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2000US-0226868
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2000US-0214880.
2000US-0217487.
2000US-0217496.
2000US-0218290.
2000US-0218290.
2000US-0220963.
2000US-0220964.
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2000US-0190076.
2000US-0198123.
2000US-0205515.
2000US-0209467.
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2000US-0180628.
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2000US-0186350.
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2000US-0229345.
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13-OCT-2000

20-OCT-2000

20-OCT-2000

20-OCT-2000

20-OCT-2000

20-OCT-2000

20-OCT-2000

20-OCT-2000

20-OCT-2000

08-NOV-2000

09-NOV-2000

09-NOV-2000

017-NOV-2000

117-NOV-2000

117-NOV-2000
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02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
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01-DEC
05-DEC
05-DEC
05-DEC
06-DEC
06-DEC
08-DEC
08-DEC
Nucleic acids encoding human immune/hematopoietic antigen polypeptides, useful for preventing, diagnosing and/or treating cancers and
                                      WPI; 2001-483426/52.
                                                                                                               -2000;
-2000;
-2000;
-2000;
                                                                                        HUMAN
                                                              Barash
                                                                                                             2000US-0236802

2000US-0237039

2000US-0237039

2000US-0239937

2000US-0241785

2000US-0241809

2000US-0241809

2000US-024617

2000US-0246474

2000US-0246476

2000US-0246477

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
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Best Local S
Matches 23
31-JAN-2000

04-FEB-2000

24-FEB-2000

02-MAR-2000

16-MAR-2000

17-MAR-2000

18-PAR-2000

19-MAY-2000

07-JUN-2000

28-JUN-2000

07-JUL-2000

07-JUL-2000

11-JUL-2000

11-JUL-2000

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11-JUL-2000

26-JUL-2000

26-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1856 ggcagcaccatgtcctcatggagatcc 1882
                                                                                                                                                                                                                                                                                                                                                                                           Human; immune; haematopoietic; immune/haematopoietic antigen; cancer;
cytostatic; gene therapy; vaccine; metastasis; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                      Human immune/haematopoietic antigen genomic sequence SEQ
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                                                                                                                                                                                                                                                                           17-JAN-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 2205 BP;
                                                                                                                                                                                                                                                                                                                                      WO200157182-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            represent sequences used in the exemplification of the present invention
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23; Conserv
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             2000US-0189874
2000US-0190076
2000US-0196123
2000US-0205515
2000US-0204467
2000US-0214886
2000US-0215135
2000US-021647
2000US-0216880
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2000US-0217487
2000US-0217487
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2000US-0180628.
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2000US-0186350.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      68.7%;
85.2%;
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0;

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CC amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic cactivity, and can be used in gene therapy and vaccine production. (I) cyroteins and polynucleotides may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate (I) expression. For cexample, they may be used to treat disorders associated with decreased expression by rectifying mutations or deletions in a patient's genome contact the activity of (I) by expressing inactive proteins or to complement the patients own production of (I). Additionally, (I) complyucleotides may be used to produce the secreted (I), by inserting the nucleic acids into a host cell and culturing the cell to express the concers and cancer metastases of haematopoietic-derived cells. AAK64703 concers and cancer metastases of haematopoietic derived cells. AAK64703 concers and cancer metastases of haematopoietic antigen genomic
         08-NOV-2000
17-NOV-2000
17-NOV
                                                                                                                                                                                                                                                                                                           Disclosure;
                                                                                                                                                                                                                                                                                                                                            Nucleic acids encoding useful for preventing, metastasis -
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                                                                                                                                                                                                                                                                                                           SEQ
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2000US-0246523
2000US-0246523
2000US-0246523
2000US-0246523
2000US-0246526
2000US-0246610
2000US-0246611
2000US-0246611
2000US-0246611
2000US-0249207
2000US-0249210
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2000US-0251930
2000US-0251930
2000US-0251988
2000US-0251868
2000US-0251989
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                                                                                                                                                                                                                                                                                                                                                              human immune/hematopoietic diagnosing and/or treating
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                                                                                                                                                                                                                                                                                                         Listing;
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polypeptides, and

ת מרטים ידים מרטים מרטים לידים לידים מרטים מ מרטים מר

2000US-0224518
2000US-0225213
2000US-0225213
2000US-0225266
2000US-0225275
2000US-0225275
2000US-0225757
2000US-0225757
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2000US-0231244
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14 AUG 2000
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\$-0241221 \$-0241785 \$-0241786 \$-0241808 \$-0241809 \$-0241826 \$-0241826 \$-0246474 \$-0246475 \$-0246475

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RESULT
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Best Local Similarity 85.7
Matches 23; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-JUL-2000

26-JUL-2000

14-AUG-2000

15-AUG-2000

16-AUG-2000

17-AUG-2000

18-AUG-2000

18-AU
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07-JUL-2000;
07-JUL-2000;
11-JUL-2000;
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16-MAR-2000;
17-MAR-2000;
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28-JUN-2000;
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cytostatic; gene therapy; vaccine; metastasis; ds.
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                                                                                                                                                                                                                                                                                                                                                                                     11-JUL-2000;
14-JUL-2000;
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2000US-0179065.
2000US-0184664.
2000US-0184664.
2000US-0184664.
2000US-0199123.
2000US-0199123.
2000US-0214886.
2000US-0214886.
2000US-0214886.
2000US-0215135.
2000US-0216880.
2000US-0218290.
2000US-0218290.
2000US-0218290.
2000US-0224518.
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2000US-0225214.
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2000US-0225759.
2000US-0226681.
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85.2%;
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Pred. No. 40;
0; Mismatches
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14-SEP-2000;
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2000US-023299

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2000US-023403
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2000US-0229344.
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2000US-0241786.
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2000US-02492112.
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2000US-0235884.
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2000US-0235836.
2000US-0235336.
2000US-0236367.
2000US-0236368.
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2000US-0237040.
2000US-0239935.
2000US-0239937.
2000US-0249960.
2000US-0241221.
2000US-0241785.
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2000US-0237037.
2000US-0237038.
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2000US-0236370
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RESULT 24
AAK73344
ID AAK733
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                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
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                                                                                                                                                                        17 NOV 2000
01 DEC 2000
01 DEC 2000
05 DEC 2000
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                                   AAK73344 standard; DNA; 22680 BP
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                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 22680 BP; 4444 A; 6635 C; 7046 G; 4555 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (HUMA-) HUMAN GENOME SCI INC
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                                                                                                                                                                                                                                                                                                                   Similarity
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2000US-0249216
2000US-0249217
2000US-0249244
2000US-0249245
2000US-0249265
2000US-0249265
2000US-0249269
2000US-0249297
2000US-0249299
2000US-02503160
2000US-02503160
2000US-0251030
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85.2%;
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                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                                                                                   Score 20.6;
Pred. No. 40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SM;
                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                    DB 22;
                                                                                                                                                                                                                                                                                                                                              Length 22680;
                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                       0 other;
                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                         0
     $\times \times \
14 - AUG - 2000

18 - AUG - 2000

22 - AUG - 2000

23 - AUG - 2000

23 - AUG - 2000

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12 - SEP - 2000

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14 - SEP - 2000
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04-FEB-2000

24-FEB-2000

16-MAR-2000

17-MAR-2000

18-AFR-2000

19-MAY-2000

07-JUN-2000

07-JUL-2000

07-JUL-2000

07-JUL-2000

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  2000US-0179065

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2000US-0216647

2000US-021689

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2000US-021899

2000US-0229963

2000US-0229963

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2000US-0225268

2000US-02252757

2000US-0225471

2000US-0225475

2000US-0225475
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C AAK73344;

X 7 06-NOV-2001 (first entry)

X 8 06-NOV-2001 (first entry)

X 9 06-NOV-2001 (first entry)

X 10 06-NOV-2001 (first entry)

X 10 06-NOV-2001 (first entry)

X 10 09-AUG-2001.
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21-SEP-2000;
25-SEP-2000;
25-SEP-2000;
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27-SEP-2000;
29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
20-CCT-2000;
21-NOV-2000;
21-NO
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14-SEP-2000;
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2000US-0236370

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2000US-0233063
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AAK73625/
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Best Local :
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08-DEC-2000;
08-DEC-2000;
08-DEC-2000;
08-DEC-2000;
11-DEC-2000;
05-JAN-2001;
 31-JAN-2000; 2000US-0179065
04-FEB-2000; 2000US-0180628
                                                                                                                                                                                                                                       Human immune/haematopoietic antigen
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 22680 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure;
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                                                   17-JAN-2001;
                                                                                                                                                                                       cytostatic;
                                                                                                                                                                                                         Human;
                                                                                                                                                                                                                                                                         07-NOV-2001 (first entry)
                                                                                     09-AUG-2001
                                                                                                                     WO200157182-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                              4 ggcagcaccaagtccggatgcagatcc 30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CA,
                                                                                                                                                                                                         immune; haematopoietic; immune/haematopoietic antigen; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                              standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Barash SC,
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                                                   2001WO-US01354
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                                                                                                                                                                                     therapy; vaccine; metastasis;
                                                                                                                                                                                                                                                                                                                                              DNA;
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85.2%;
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Mismatches

ВP

genomic sequence SEQ ID NO:28437.

Score 20.6; Pred. No. 4

40; DB

22; 4;

Length 22680; Indels

0;

Gaps

0

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CC and AK54951 to AAK64702 encode the human immune/haematopoietic antigen (I) CC amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic activity, and can be used in gene therapy and vaccine production. (I) CC proteins and polynucleotides may be used in the prevention, diagnosis and Ct treatment of diseases associated with hnappropriate (I) expression. For CC example, they may be used to treat disorders associated with decreased CC expression by rectifying mutations or deletions in a patient's genome CC that affect the activity of (I) by expressing inactive proteins or to supplement the patients own production of (I). Additionally, (I) CC polynucleotides may be used to produce the secreted (I), by inserting CC the nucleic acids into a host cell and culturing the cell to express the CC protein. (I) proteins and polynucleotides may be used to prevent, CC diagnose and treat immune/haematopoietic related diseases, especially CC cancers and cancer metastases of haematopoietic antigen genomic concers and cancer metastases of haematopoietic antigen genomic concers from the present inwention. AAK54942 to AAK54950 and AAM62169 CC represent sequences used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nucleic acids encoding human immune/hematopoietic antigen polypeptides, useful for preventing, diagnosing and/or treating cancers and metastasis -
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2000US-0251868.
2000US-0251869.
2000US-0251989.
2000US-0251989.
2000US-0254097.
2000US-0259678.
4444 A; 6635 C; 7046 G;
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         4555 T; 0 other;
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02-OCT-2000
02-OCT-2000
13-OCT-2000
21-OCT-2000
20-OCT-2000
20-OCT
 Disclosure;
                            Nucleic acids encoding useful for preventing, metastasis -
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                                                                                        2001-483426/52
                                                                                                                   CA,
                                                                                                                                                HUMAN
                                                                                                                   Barash
SEQ ID NO 28437; 3071pp + Sequence Listing; English.
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2000US-0251869
2000US-0251869
2000US-0251989
2000US-0251989
2000US-0251989
2000US-0251989
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                                            human immune/hematopoietic diagnosing and/or treating
                                                                                                                      Ruben
                                                                                                                      XS
                                            antigen polypeptides, cancers and
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24-FEB-2000
102-MAR-2000
117-MAR-2000
119-MAR-2000
119-MAR-2000
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11-JUL-2000
11-AUG-2000
11-SEP-2000

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2000US-0233484
2000US-02334834
2000

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RESULT 26
AAK73847
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Best Loc
Matches
31 - JAN - 2000

04 - FEB - 2000

24 - FEB - 2000

12 - MAR - 2000

11 - MAR - 2000

11 - MAR - 2000

11 - AR - 2000

11 - AR - 2000

12 - MAY - 2000

13 - JUN - 2000

14 - JUL - 2000

17 - JUL - 2000

18 - AUG - 2000

19 - AUG - 2000

11 - JUL - 2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo
                                                                                                                                                                                                                                                                                                                                                                                                             17-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200157182-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human immune/haematopoietic antigen genomic sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-NOV-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAK73847;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 22680 BP; 4555 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            immune; haematopoietic; immune/haematopoietic
atic; gene therapy; vaccine; metastasis; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23;
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23; Conservative
 2000US-0118-664
2000US-0118-50
2000US-0118-874
2000US-0190076
2000US-0205915
2000US-0209467
2000US-0215-13
2000US-0215-13
2000US-0215-18
2000US-0215-18
2000US-02118-90
2000US-02174-96
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2000US-0180628
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88
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Pred. No. 40;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C; 6635 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4444 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               antigen;
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29-SEP-2000

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02-OCT-2000

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14-AUG-2000;
14-AUG-2000;
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12-SEP-2000;
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2000US-0225757.

2000US-0225758.

2000US-0225759.

2000US-0226279.

2000US-02268681.

2000US-0227182.

2000US-0227182.
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2000US-0228924
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2000US-0229343
2000US-0229513
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2000US-0229513
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2000US-0231243
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2000US-0232396
2000US-0232397
2000US-0232401
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2000US-0232401
2000US-0233636
2000US-0234994
2000US-0234934
2000US-0235836
2000US-0235836
2000US-0235836
2000US-0236802
2000US-02461786
2000US-0246476
2000US-0246476
2000US-0246476
2000US-0246476
2000US-0246476
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amino acid sequences given in AAM82170 to AAM891271. (1) have cytostatic activity, and can be used in gene therapy and vaccine production. (I) proteins and polynucleotides may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate (I) expression. For example, they may be used to treat disorders associated with decreased expression by rectifying mutations or deletions in a patient's genome that affect the activity of (I) by expressing inactive proteins or to supplement the patients own production of (I). Additionally, (I) or polynucleotides may be used to produce the secreted (I), by inserting the nucleic acids into a host cell and culturing the cell to express the protein. (I) proteins and polynucleotides may be used to prevent, and diagnose and treat immune/haematopoietic-derived cells. AAK64703 to AAK87694 represent human immune/haematopoietic antigen genomic sequences from the present invention. AAK64942 to AAK64950 and AAM82169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-NOV-2000
08-NOV-2000
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17-NOV-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    metastasis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CA,
                                                                                                                                                                                                                                                                                                                                                                                    to AAK64702 encode the human immune/haematopoietic antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         preventing,
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2000US-0246525.
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2000US-0246527.
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2000US-0246611.
2000US-0249207.
2000US-0249211.
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2000US-0249212.
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2000US-0249213.
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2000US-0249214.
2000US-0249214.
2000US-0249215.
2000US-0249216.
2000US-0251661.
2000US-0251661.
2000US-0251166.
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                                                                                                                                                                                                                                                                                                                                                                                                                                  ID NO 28659; 3071pp + Sequence Listing; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     human immune/hematopoietic antigen diagnosing and/or treating cancers
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sequences used in the

exemplification

of the

present invention

and

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RESULT ARK73934
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ID ARK73934
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Best Local
18-APR-2000
19-MAY-2000
07-JUN-2000
07-JUL-2000
07-JUL-2000
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14-JUL-2000
14-AUG-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human immune/haematopoietic antigen
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2000US-0225267.
2000US-0225268.
2000US-0225270.
2000US-0225447.
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2000US-0224518.
2000US-0224519.
2000US-0225213.
2000US-0225214.
                       2000US-0226868.
2000US-0227182.
2000US-0227009.
2000US-0228924.
2000US-0228924.
2000US-0229343.
2000US-0229344.
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2000US-0226279.
2000US-0226681.
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2000US-0218290.
2000US-0220963.
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2000US-0214886.
2000US-0215135.
2000US-0216647.
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2000US-0225758
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2000US-0184664
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85.2%;
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Pred. No. 40;
0; Mismatches
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2000US-0230438. 2000US-0231242. 2000US-0231243. 2000US-0231244.

2000US-0229509. 2000US-0229513. 2000US-0230437.

12-SEP-2000; 14-SEP-2000; 14-SEP-2000; 14-SEP-2000; 14-SEP-2000;

2000US-0231968. 2000US-0232397.

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RESULT 2
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                                                                                                                                                                                                                                                                                  CC AAK54951 to AAK64702 encode the human immune/haematopoletic antigen (I) CC amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic continuity, and can be used in gene therapy and vaccine production. (I) CC proteins and polynucleotides may be used in the prevention, diagnosis and contents and polynucleotides may be used in the prevention, diagnosis and contents of diseases associated with inappropriate (I) expression. For contents of they may be used to treat disorders associated with decreased cc expression by rectifying mutations or delations in a patient's genome ct that affect the activity of (I) by expressing inactive proteins or to c supplement the patients own production of (I). Additionally, (I) cc polynucleotides may be used to produce the secreted (I), by inserting conjugate to the nucleic acids into a host cell and culturing the cell to express the conjugate and treat immune/haematopoletic-related diseases, especially concers and cancer metastases of haematopoletic-derived cells. AAK64703 cc sequences from the present invention. AAK54942 to AAK54950 and AAM62169 crepresent sequences used in the exemplification of the present invention.
                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 23; Conserv
                                                                                                                              16682 ggcagcaccatgtcctcatggagatcc 16708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-DEC-2000
01-DEC-2000
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08-DEC-2000
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17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               useful for metastasis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nucleic acids encoding useful for preventing, metastasis -
   07-NOV-2001
                               AAK78350;
                                                         AAK78350
                                                                                                                                                                                                                                                             Sequence 22680 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI;
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17-NOV-2000;
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17-NOV-2000;
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17-NOV-2000;
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                                                                                                                                                4 ggcagcaccaagtccggatgcagatcc 30
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                                                          standard;
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2000US -0249217.
2000US -0249214.
2000US -0249244.
2000US -0249245.
2000US -0249265.
2000US -0249297.
2000US -0249297.
2000US -0259390.
2000US -0259391.
2000US -0251988.
2000US -0251886.
2000US -0251866.
2000US -0251866.
2000US -0251869.
2000US -0251869.
2000US -0251989.
2000US -0251989.
2000US -0251989.
2000US -0251989.
2000US -0251989.
2000US -0251989.
                                                                                                                                                                                        Conservative
   (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ID NO 28746; 3071pp + Sequence Listing; English
                                                                                                                                                                                                                                                             4444 A; 6635 C;
                                                          DNA; 22680
                                                                                                                                                                                                    68.7%;
85.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human immune/hematopoietic antigen polypeptides, diagnosing and/or treating cancers and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ruben
                                                                                                                                                                                     Score 20.6; D
Pred. No. 40;
0; Mismatches
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                                                                                                                                                                                                                                                               4555
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                                                                                                                                                                                                                Length 22680;
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                                                                                                                                                                                                                                                               0 other;
                                                                                                                                                                                        0;
                                                                                                                                                                                        Gaps
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2000US -023 427 2000US -023 306 2000US -023 306 2000US -023 401 2000US -023 306 2000US -023 402 2000US -023 423 2000US -023 423 2000US -023 427 2000US -023 427 2000US -023 5484 2000US -023 583 2000US -023 583 2000US -023 583 2000US -023 6367 2000US -023 6369 2000US -023 6370 2000US -023 6370 2000US -023 6370 2000US -023 7037 2000US -023 7037 2000US -023 7039 2000US -023 9937 2000US -023 9937

14 - SEP - 2000
21 - SEP - 2000
25 - SEP - 2000
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29 - SEP - 2000
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20 - OCT - 2000
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04 - OCT - 2000
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06 - NOV - 2000
07 - OCT - 2000
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2000US -0241786
2000US -02411809
2000US -0241809
2000US -0246174
2000US -0246474
2000US -0246475
2000US -0246477
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17-JAN-2001; 31-JAN-2000; 04-FEB-2000; 02-MAR-2000; 16-MAR-2000; 11-MAR-2000; 19-MAR-2000; 19-MAR-2000; 20-JUN-2000; 20-JUN-2000; 20-JUN-2000; 20-JUN-2000; 20-JUN-2000; 11-JUL-2000; 11-AUG-2000; 11-AU	Human immune/h Human; immune; cytostatic; ge Homo sapiens. WO200157182-A2 09-AUG-2001.
2001W0-US01354. 2000US-0118658. 2000US-0118658. 2000US-0118658. 2000US-0118664. 2000US-0118667. 2000US-011867. 2000US-011867. 2000US-011866. 2000US-011866. 2000US-011866. 2000US-01186. 200US-01186.	<pre>immune/haematopoietic antigen genomic sequence SEQ ID NO:33162. immune; haematopoietic; immune/haematopoietic antigen; cancer; atic; gene therapy; vaccine; metastasis; ds. apiens. 57182-A2.</pre>
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29-SEP-2000 29-SEP-2000 02-OCT-2000 02-OCT-2000 02-OCT-2000 13-OCT-2000 20-OCT-2000 20-OCT-2000 20-OCT-2000 20-OCT-2000 20-OCT-2000 20-OCT-2000 20-OCT-2000 20-OCT-2000 20-OCT-2000 01-NOV-2000 08-NOV-2000 09-NOV-2000 09-NOV	11-SEP 21-SEP 21-SEP 25-SEP 26-SEP 27-SEP 27-SEP 29-SEP 29-SEP
2000US -0236370 2000US -0236370 2000US -0236370 2000US -0237039 2000US -0237039 2000US -0239935 2000US -0239935 2000US -0241785 2000US -0241809 2000US -0241809 2000US -0241809 2000US -0241861 2000US -0246474 2000US -0246476 2000US -0246476 2000US -0246476 2000US -0246476 2000US -0246476 2000US -0246617 2000US -0246524 2000US -0246526 2000US -0246526 2000US -0246526 2000US -0246521 2000US -0249211 2000US -0249211 2000US -0249211 2000US -0249211 2000US -0249211 2000US -0249211 2000US -0249214 2000US -0249211	2000US-0233065 2000US-0234223 2000US-0234274 2000US-0234997 2000US-023498 2000US-0235484 2000US-0235836 2000US-0235836 2000US-0236367 2000US-0236367 2000US-0236367

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CC activity, and can be used in gene therapy and vaccine production. (I) proteins and polynucleotides may be used in the prevention, diagnosis and CC treatment of diseases associated with inappropriate (I) expression. For CC example, they may be used to treat disorders associated with decreased CC expression by rectifying mutations or deletions in a patient's genome CC supplement the patients own production of (I). Additionally, (I) CC polynucleotides may be used to produce the secreted (I), by inserting CC the nucleic acids into a host cell and culturing the cell to express the CC protein. (I) proteins and polynucleotides may be used to produce the secreted (I), by inserting CC diagnose and treat immune/haematopoietic-related diseases, especially cancers and cancer metastases of haematopoietic derived cells. AAK64703 CC sequences from the present invention. AAK54942 to AAK87694 are present invention. AAK54942 to AAK54950 and AAM82169 represent sequences used in the exemplification of the present invention.
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Matches 23
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04-FEB-2000;
26-MAY-2000;
30-JUN-2000;
03-AUG-2000;
21-SEP-2000;
27-SEP-2000;
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08-DEC-2000;
11-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nucleic acids useful for pre
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                                                                                           30-JAN-2001; 2001WO-US00669
                                                                                                                    09-AUG-2001
                                                                                                                                              WO200157277-A2
                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                Human;
                                                                                                                                                                                                                          Human
                                                                                                                                                                                                                                                    01-FEB-2002
                                                                                                                                                                                                                                                                            ABA70982;
                                                                                                                                                                                                                                                                                                     ABA70982 standard; DNA; 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; SEQ ID NO 33162;
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                                                                                                                                                                                                                                                                                                                                29
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                                                                                                                                                                                                                         foetal liver single exon nucleic acid probe #19287.
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                                                                                                                                                                                               foetal liver;
                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity 85.2
23; Conservative
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2000US-0180312.
2000US-0207456.
2000US-0608408.
2000US-0632366.
2000US-0234687.
2000US-0236359.
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2000US-0251990.
2000US-0254097.
2000US-0259678.
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85.2%;
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                                                                                                                                                                                               expression;
                                                                                                                                                                                                                                                                                                      BP
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Pred. No. 40;
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                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                               30
                                                                                                                                                                                               single exon nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 22;
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Best L
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                                                                                                                         04-FEB-2000;
26-MAY-2000;
30-JUN-2000;
03-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    measuring human gene expression in a sample derived from human foetal liver. The single exon nucleic acid probes may be used for predicting, measuring and displaying gene expression in samples derived from human fetal liver. The present sequence is a single exon nucleic acid probe of the invention.

Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                    ABA37402 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to a single exon nucleic acid measuring human gene expression in a sample derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human genome-derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-OCT-2000; 2000GB-0024263.
Single exon nucleic acid hearts -
                                                                                                                                                                                                                                                                        Human; gene expression; heart; microarray; vascular system; probe; cardiovascular disease; hypertension; cardiac arrhythmia;
                                                                                                                                                                                                                                                                                                                                                 ABA37402;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 4;
                             WPI; 2001-488899/53.
                                                                                           04-OCT-2000;
                                                                                                     21-SEP-2000;
27-SEP-2000;
                                                                                                                                                                                                  09-AUG-2001
                                                                                                                                                                                                                       WO200157274-A2
                                                                                                                                                                                                                                                              congenital heart
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 197
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                                                                                                                                                                             30-JAN-2001;
                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                       Probe #15868
                                                                     (MOLE-)
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                                                 SG,
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22; Conservative
                                                                     MOLECULAR DYNAMICS
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2000US-0207456.
2000US-0608408.
2000US-0632366.
2000US-0234687.
2000US-0234685.
2000US-02346359.
                                                                                                                                                                                                                                                                                                       for
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                                                                                                                                                                             2001WO-US00666
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                                                 DK,
                                                                                                                                                                                                                                                               disease; ss
                                                                                                                                                                                                                                                                                                      gene expression analysis in human heart cell sample
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                                                   Chen
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        probes
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Pred.
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        for analyzing gene expression
                                                                                                                                                                                                                                                                                                                                                                                                                        87
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No.
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50;
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         human
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RESULT :
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Best Loc
Matches
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                                                                                                                                                                                      04-FEB-2000;
26-MAY-2000;
30-JUN-2000;
03-AUG-2000;
        The present invention provides a number of single exon nucleic acid probes which are derived from genomic sequences expressed in the human brain. They can be used to measure gene expression in brain cell sample.
                                                                                                                                                                                                                                                                                                                            Human; brain expressed emicroarray; Alzheimer's
                                                                                                                                                                                                                                                                                                                                                                                                                 AAK19258
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                                                                                                                                                                    21-SEP-2000;
27-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                         Human brain expressed single
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                                                  Example
                                                                             Single
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                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                   epilepsy; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
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                                                                                                                                        (MOLE-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   62
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ggcagcaccaagtccggatgcagatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ggcagcaccaagcccgggtggagctc 87
                                                                                                 2001-483446/52
 may
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                                                                             exon nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        l Similarity
22; Conser
                                                                                                                                        MOLECULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                  standard;
 enable
                                                                                                                    Hanzel
                                                 SEQ
                                                                                                                                                         2000US-0180312.
2000US-0207456.
2000US-0608408.
2000US-0632366.
2000US-0632368.
2000US-0234687.
2000US-0236359.
2000US-023623.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IJ
                                                                                                                                                                                                                                       2001WO-US00667
                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                  ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                    DK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       54 A;
                                                                                                                                        DYNAMICS INC
                                                                                                                                                                                                                                                                                                                   88.
                                                                                                                                                                                                                                                                                                                                                                                                                  DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15868;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                65.3%;
84.6%;
diagnosis
                                                                                                                    Chen
                                                 19249;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       45
                                                                                                                                                                                                                                                                                                                                      exon;
                                                                                                                                                                                                                                                                                                                                                                                                                   197
                                                                                                                                                                                                                                                                                                                             disease;
                                                                             probes
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     530pp;
                                                                                                                                                                                                                                                                                                                                                                                                                  ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 19.6; D
Pred. No. 50;
0; Mismatches
                                                650pp + Sequence Listing;
                                                                                                                                                                                                                                                                                                                                     gene
                                                                                                                                                                                                                                                                                                                                                         exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73 G;
                                                                                                                    Rank
                                                                              for
                                                                                                                                                                                                                                                                                                                           multiple sclerosis; sc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     English.
                                                                                                                                                                                                                                                                                                                                                        probe SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19.6;
No. 50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25
 improved
                                                                            analyzing
                                                                                                                    DR.
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                                                                                                                                                                                                                                                                                                                                                         ID NO:
 treatment of nervous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22;
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                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
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                                                                             expression
                                                                                                                                                                                                                                                                                                                                                         19249
                                                                                                                                                                                                                                                                                                                            schizophrenia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   part of the printed directly from WIPO
                                                English
                                                                                                                                                                                                                                                                                                                                     probe;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           197;
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                                                                             'n
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 system
                                                                              human
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뭥 Q

62

4

ggcagcaccaagtccggatgcagatc

29

ggcagcaccaagcccgggtggagctc

Matches

l Similarity 22; Conser

Conservative

0;

Mismatches

4;

Indels

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Gaps

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Вb
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អនុស្ន
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Best Local S
Matches 22
    Query Match
Best Local
                                                                                                                                                                                                                                       04-FEB-2000;
26-MAY-2000;
30-JUN-2000;
03-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diseases s
epilepsy a
invention.
                                                     probes which are derived from genomic sequences expressed in the human bone marrow. They can be used to measure gene expression in bone marrow samples, which may enable the improved diagnosis and treatment of cancer such as lymphoma, leukaemia and myeloma. The present sequence is one of the probes of the invention.
                                                                                                   The
                                                                                                                                                                              Penn
                                                                                                                                                                                                                                                                                                                     WO200157276-A2
                                                                                                                                                                                                                                                                                                                                                      Human; bone marrow expressed exon; gene expression analysis; probe; microarray; cancer; leukaemia; lymphoma; myeloma; ss.
                                      Sequence
                                                                                                                  Example
                                                                                                                                  analyzing
                                                                                                                                                                                                                 04-OCT-2000;
                                                                                                                                                                                                                                                                                   30-JAN-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                  AAK45228;
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                                                                                                                                                                                               (MOLE-)
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                                                                                                                                                                              SG,
                                                                                                                                                             2001-488900/53.
                                                                                                                                  genome-derived single exon nucleic zing gene expression in human bone m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               l Similarity 84.0
22; Conservative
                                                                                                                  4; SEQ ID NO:
                                                                                                                                                                                               MOLECULAR DYNAMICS
                                       197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  such as Alzheimer's disease, multiple sclerosis, schizophrenia, and cancers. The present sequence is one of the probes of the
                                                                                                                                                                                                                                                                                                                                                                                                                                    standard;
                                                                                                                                                                              Hanzel
                                                                                                                                                                                                                                                                                                                                                                                 marrow
                                                                                                                                                                                                               2000US-0180312.
2000US-0207456.
2000US-0608408.
2000US-0632366.
2000US-0234687.
2000US-02346359.
2000US-0236359.
                                                                                                 invention provides a number of single
                                      BP;
                                                                                                                                                                                                                                                                                    2001WO-US00668
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                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
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                                      Α,
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   65.3%;
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                                                                                                                                                                             Chen
                                                                                                                  19785; 658pp + Sequence Listing;
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                                      c;
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    Score
Pred.
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No.
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No.
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marrow -
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                                       other
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             22;
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            Length
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                                                                                                                   English
              197;
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                                                                of cancers
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RESULT 34
AAI51179
ID AAI511
XX
AC AAI511
XX
DT 17-OCT
XX
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                                                                                                          Query Match
Best Local S
Matches 22
                                                                                                                                                          The present invention relates to human single exon nucleic acid probes (SENP). The present sequence is one such probe. The SENPs are derived from human HeLa cells. The SENPs can be used to produce a single exon microarray, which can be used for measuring human gene expression in a sample derived from human cervical epithelial cells. By measuring gene expression, the probes are therefore useful in grading and/or staging of diseases of the cervix, notably cervical cancer. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp. wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                             03-AUG-2000;
21-SEP-2000;
27-SEP-2000;
                                                                                                                                                                                                                                                                Human genome-derived single exon nucleic acid probes useful analyzing gene expression in human cervical epithelial cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAI25200 standard;
                                                                                                                                               Sequence 197
                                                                                                                                                                                                                                                    Claim
                                                                                                                                                                                                                                                                                                        Penn
                                                                                                                                                                                                                                                                                                                                                                                                    30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                   09-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Probe; human; microarray;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Probe #15133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-OCT-2001
        17-OCT-2001
                       AAI51179;
                                      AAI51179
                                                                                                                                                                                                                                                                                                                       (MOLE-)
                                                                                                                                                                                                                                                                                                                                                                    26-MAY-2000;
30-JUN-2000;
                                                                             62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    33
                                                                                          4
                                                                          ggcagcaccaagcccgggtggagctc
                                                                                  ggcagcaccaagtccggatgcagatc
                                                                                                                                                                                                                                                                                                        SG,
                                                                                                                                                                                                                                                                                          2001-488901/53.
                                                                                                                                                                                                                                                   25;
                                                                                                          Similarity
22; Conser
                                                                                                                                                                                                                                                                                                                       MOLECULAR DYNAMICS
                                      standard;
                                                                                                                                                                                                                                                  SEQ ID No 15133; 487pp; English.
                                                                                                                                                                                                                                                                                                        Hanzel DK,
                                                                                                                                                                                                                                                                                                                                     2000US-0180312.
2000US-0207456.
2000US-0608408.
2000US-0632366.
2000US-0234687.
2000US-02346359.
2000US-0236359.
                                                                                                          Conservative
                                                                                                                                               вP;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        for
        (first
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                                                                                                                                               54 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA;
                                      DNA;
                                                                                                                 65.3%;
84.6%;
                                                                                                                                                                                                                                                                                                        Chen W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       expression
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene expression; cervical epithelial cell;
                                                                                                                                                                                                                                                                                                                       INC
                                                                                                      Score 19.6; upper No. 50; O; Mismatches
                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ВP
                                      ВP
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                                                                                                                                                                                                                                                                                                        Rank
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                                                                                                                                               <u>ن</u>
                                                                                          29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       analysis in human
                                                                                                                                               25 T; 0 other;
                                                                                                                                                                                                                                                                                                        DR;
                                                                                                                         DВ
                                                                                                                        22;
                                                                                                          4;
                                                                                                                       Length
                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cervical cell sample.
                                                                                                                        197;
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                                                                                                          Gaps
                                                                                                         0;
                                                                                                                                                             RESULT .
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Best Local S
Matches 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           genetic
                                                                                                        Human
                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                              Claim
                                                                                          Human;
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                                                                                                                                                                                                                                                                                                                                                     Human
                                                                                                                                                                                                                                                                                                                                                                                                  (MOLE-)
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5
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04-FEB-2000;
26-MAY-2000;
30-JUN-2000;
03-AUG-2000;
04-FEB-2000;
26-MAY-2000;
30-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention relates to single exon nucleic acid probes The present sequence is one such probe. The probes are useful for producing a microarray for predicting, measuring and displaying expression in samples derived from human placenta. The probes at for antenatal diagnosis of human genetic disorders.
                                                                                                                                                                                                                           01-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-SEP-2000;
27-SEP-2000;
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                                                       30-JAN-2001;
                                                                                   09-AUG-2001
                                                                                                               WO200157277-A2
                                                                                                                                                                                                                                                                                 ABA58386 standard;
                                                                                                                                                                                                                                                                                                                                                   sapiens
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                                                                                                                                                                                              foetal liver single exon nucleic acid probe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        genome-derived single exon nucleic acid ring gene expression in human placenta -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               microarray;
                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
22; Conserv
                                                                                                                                                                   foetal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULAR DYNAMICS
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2000US-0207456.
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2000US-0632366.
2000US-0234687.
2000US-0236359.
 2000US-0180312.
2000US-0207456.
2000US-0608408.
                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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                                                       2001WO-US00669
                                                                                                                                                                   liver;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ID No 19865; 654pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  54 A; 45 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               human; placenta; antenatal diagnosis;
                                                                                                                                                                                                                                                                                  DNA;
                                                                                                                                                                                                                         entry)
                                                                                                                                                                                                                                                                                                                                                                                                                          65.3%;
                                                                                                                                                                   gene expression; single exon nucleic acid probe;
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Pred.
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No. 50;
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probes are useful for
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Matches 22
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03-AUG-2000;
21-SEP-2000;
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21-SEP-2000;
27-SEP-2000;
04-OCT-2000;
                                                                                                                                                                                                                                                   Human; gene expression; heart; microarray; vascular syste cardiovascular disease; hypertension; cardiac arrhythmia; congenital heart disease; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to a single exon nucleic acid probe for measuring human gene expression in a sample derived from human foetal liver. The single exon nucleic acid probes may be used for predicting, measuring and displaying gene expression in samples derived from human
WPI; 2001-488899/53
                                                                                                                         04-FEB-2000;
26-MAY-2000;
                                                                                                                                                           30-JAN-2001;
                                                                                                                                                                                  09-AUG-2001
                                                                                                                                                                                                                                                                                                Probe #5963
                                                                                                                                                                                                                                                                                                                      23-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                    ABA27497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 486 BP; 132 A; 113 C; 151 G; 90 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Note: The sequence data for this patent did not form part of printed specification, but was obtained in electronic format from WIPO at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-483447/52.
                                                                                                                                                                                                        WO200157274-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tetal liver. The present sequence is a single exon nucleic acid probe of the invention.
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                                          (MOLE-)
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                     SG,
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zing gene expression in human fetal liver -
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22; Conser
                                           MOLECULAR DYNAMICS INC
                                                                                                                                                                                                                                                                                                                                                                  standard; DNA; 486
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                     Hanzel DK,
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                                                                2000US-0180312.
2000US-0207456.
2000US-0608408.
2000US-0632366.
2000US-0234687.
2000US-02346359.
2000US-0236359.
                                                                                                                                                                                                                                                                                               for gene expression analysis in human heart cell sample
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2000US-0234687.
2000US-0236359.
2000US-0024263.
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                     Chen
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Pred. No. 58;
0; Mismatches
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                                                                                                                                                                                                                                                                           vascular system;
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RESULT
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Matches 22
                                                                                                                                                 30-JUN-2000;
03-AUG-2000;
21-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            measuring human gene expression in a sample derived from human heart. The present sequence is one such probe. The probes may be used for predicting, measuring and displaying gene expression in samples derived from the human heart via microarrays. By measuring gene expression, the probes are useful for predicting, diagnosing, grading, staging, monitoring and prognosing diseases of the human heart and vascular system e.g. cardiovascular disease, hypertension, cardiac arrhythmias and
                                                                                                                                                                               04-FEB-2000;
26-MAY-2000;
                                                                                                                                                                                                                                                                                                   Human; brain expressed exon; microarray; Alzheimer's disea
                                                                                                                                                                                                                                                                         Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Note: The sequence data for this patent did no specification, but was obtained in electronic at ftp.wipo.int/pub/published_pct_sequences.
                 Example
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                                                                                                                                                                                                                                                                                           epilepsy; cancer;
                                                                                                                                                                                                                                                                                                                                  Human brain
                                                                                                                                                                                                                                                                                                                                                                          AAK06491;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention relates to single exon nucleic acid probes measuring human gene expression in a sample derived from human he
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1;
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                 SEQ
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2000US-0207456.
2000US-0608408.
2000US-0632366.
2000US-0234687.
2000US-02346359.
2000US-0236359.
                                                nucleic
                                                                                                                                                                                                                                                                                                                                   expressed single exon probe SEQ ID NO:
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                 ID
                  <u>8</u>
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                                                                                        Chen
                 6482;
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58;
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schizophrenia;
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The present invention provides a number of single exon nucleic

acid

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RRESULT :
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AC AAK
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                                                                                                                                   The present invention provides a number of single exon nucleic acid probes which are derived from genomic sequences expressed in the human bone marrow. They can be used to measure gene expression in bone marrow samples, which may enable the improved diagnosis and treatment of cancel such as lymphoma, leukaemia and myeloma. The present sequence is one of the probes of the invention.
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27-SEP-2000;
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03-AUG-2000;
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26-MAY-2000;
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nes 22; Conserv
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                                                                                                                                                                                                                                                                                                                                       genome-derived single exon nucleic acid probes
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22; Conservative
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                                                                                                                                                                                                                                                                                                                    gene
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2000US-0207456.
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2000US-0632366.
2000US-0234687.
2000US-0234685.
2000US-02346359.
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Pred. No. 58;
0; Mismatches
0;
                Score 19.6;
Pred. No. 58;
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samples,
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RESULT AAI38021 ID AAI XX AC AAI

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standard;

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RESULT AAA115983
ID AAA115983
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AC AAA1
AXC AAAA1
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03-AUG-2000;
21-SEP-2000;
27-SEP-2000;
04-OCT-2000;
                                                                                                                                                                                                                                                    The present invention relates to human single exon nucleic acid probes (SENP). The present sequence is one such probe. The SENPs are derived from human HeLa cells. The SENPs can be used to produce a single exon microarray, which can be used for measuring human gene expression in a sample derived from human cervical epithelial cells. By measuring gene expression, the probes are therefore useful in grading and/or staging of diseases of the cervix, notably cervical cancer. Note: The sequence data for this patent did not form part of the prints specification, but was obtained in electronic format directly from WIPO at fig. wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Penn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          analyzing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    04-FEB-2000;
26-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200157278-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cervical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Probe; human; microarray;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAI15983;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAI15983
                                                                                                                                                                                                            Sequence 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (MOLE-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Probe #5916 for gene expression analysis in human cervical cell sample.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  324
  324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4
ggcagcaccaagcccgggtggagctc
                        ggcagcaccaagtccggatgcagatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001-488901/53.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sg,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ggcagcaccaagcccgggtggagctc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ggcagcaccaagtccggatgcagatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   genome-derived single exon nucleic acid probes useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULAR DYNAMICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hanzel DK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0180312.
2000US-0207456.
2000US-0608408.
2000US-0632366.
2000US-0234687.
2000US-02346359.
2000US-0236359.
                                                                                              Conservative
                                                                                                                                                                                                               BP; 132 A; 113 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001WO-US00670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ID No 5916; 487pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA; 486
                                                                                                                  65.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene expression; cervical epithelial cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВP
                                                                                         0
                                                                                                                Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human cervical
                                                                                                                                                                                                               151 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rank
  349
                                               29
                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             English.
                                                                                                                     19.6;
No. 58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DR;
                                                                                                                                                                                                               90
                                                                                                                                                                                                               Τ,
                                                                                                                                         DВ
                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             epithelial cells
                                                                                                                                         22;
                                                                                              4.
                                                                                                                                                                                                               other;
                                                                                              Indels
                                                                                                                                         Length
                                                                                                                                              486;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   for
                                                                                              0,
                                                                                                                                                                                                                                                                                       the printed
/ from WIPO
                                                                                              Gaps
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RESULT 41
AAV02997/c
ID AAV02997 standard;
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                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 22
                                                                 Ena-VASP like;
cytoskeleton; co
cell growth; ce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               04 - FEB - 2000;
26 - MAY - 2000;
30 - JUN - 2000;
03 - AUG - 2000;
                                                                                                                                                                                                                                                                                                                                                                                                           Human geno
analyzing
                                                                                                                                                                                                                                                                                                                          The present invention relates to single exon nucleic acid probes The present sequence is one such probe. The probes are useful for producing a microarray for predicting, measuring and displaying generation in samples derived from human placenta. The probes are for antenatal diagnosis of human genetic disorders.
                  CDS
                                               Mus musculus
                                                                                                       Murine Ena-VASP like (Evl) cDNA.
                                                                                                                            06-JUL-1998
                                                                                                                                                AAV02997;
                                                                                                                                                                                                                                                                                                                                                                                         Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Penn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Probe; microarray; human; placenta; antenatal diagnosis;
genetic disorder; ss.
                                                                                                                                                                                                                                                                                                           Sequence 486 BP; 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    04-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-JAN-2001; 2001WO-US00663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       W0200157272-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Probe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (MOLE-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             27-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21-SEP-2000;
                                                                                                                                                                                                                     324
                                                                                                                                                                                                                             4 ggcagcaccaagtccggatgcagatc 29
                                                                                                                                                                                                                   ggcagcaccaagcccgggtggagctc 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                             SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                        2001-488897/53.
                                                                                                                                                                                                                                                                                                                                                                                                         genome-derived single exon nucleic acid probes useful zing gene expression in human placenta -
                                                                                                                                                                                                                                                                                                                                                                                        25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          #6707
                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULAR DYNAMICS INC.
                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID No 6707; 654pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hanzel DK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0180312.
2000US-0207456.
2000US-0608408.
2000US-0632368.
2000US-0234687.
2000US-0234685.
2000US-02346359.
                                                                                                                                                                                                                                                           Conservative
                                                                 e; Evl gene; Mena; mammalian Ena; cell morphology; cell adhesion; cell differentiation; ds.
                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
       Location/Qualifiers
418:.1599
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          to measure
                                                                                                                                                                   cDNA; 1956
                                                                                                                                                                                                                                                                  65.3%;
                                                                                                                                                                                                                                                                                                           Ą:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chen W,
                                                                                                                                                                                                                                                                                                           113
                                                                                                                                                                                                                                                         Score 19.6; D
Pred. No. 58;
0; Mismatches
                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                           Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene expression
                                                                                                                                                                   ВP
                                                                                                                                                                                                                                                                                                           151
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rank
                                                                                                                                                                                                                                                                                                           ი;
                                                                                                                                                                                                                                                                                                           90
                                                                                                                                                                                                                                                                                                           Ţ,
                                                                                                                                                                                                                                                                              DВ
                                                                                                                                                                                                                                                                                                           0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         in human placenta sample
                                                                          Enabled;
cell motility;
                                                                                                                                                                                                                                                          4.
                                                                                                                                                                                                                                                                             Length 486;
                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                      The probes are useful
                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                 gene
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RESULT 42
AAK70210/c
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Best Local S
                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mammalian Ena (Mena, see V02996) sequence to search the GenBank database. 2 Novel mammalian genes, Mena and Ev1, encoding Mena (see W37148) and Ev1 are disclosed. Mena and Ev1 proteins have a discrete, EVH1 functional domain responsible for Mena binding to Listeria, and to the cytoskeletal proteins zyxin and vinculin. Based on the disclosed Mena and Ev1 genes and proteins, a variety of methods and compositions are provided for screening, isolating and characterising endogenous and exogenous factors, drugs and therapeutic agents useful to evaluate and/or control cytoskeletal dynamic events involved in normal and abnormal cell morphology, adhesion, motility, growth and/or differentiation. A method of deterting a modulator of Mona and evagenous as a modulator of Astation is claimed
                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                    1092 CAGAGCAGCCAGTCCTGATGCAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This cDNA comprises murine Ena-VASP like (Ev1) cDNA that codes for a 393-amino acid Ev1 protein (see W37149). It was isolated from a mouse embryonic stem cell cDNA library using human EST clone T80305 as probe; the EST had been identified using a novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Detection of modulators of Mena and Ena-VASP-like genes and pr used in control of cytoskeletal dynamic events in normal and abnormal cell morphology, adhesion, motility, growth and
                                                                                                                                                                                                                                                            AAK70210 standard; DNA; 7885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1998-101197/09.
P-PSDB; AAW37149.
                                                                                                                            cytostatic;
                                                                                                                                                                        Human
                                                                                                                                                                                                   06-NOV-2001
                                                                                                                                                                                                                                 AAK70210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1956 BP; 461 A; 571 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           detecting a modulator of Mena activity/expression is claimed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         differentiation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gertler FB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GBFB ) GES BIOTECHNOLOGISCHE (HUTC-) HUTCHINSON CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-JUL-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          03-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-JAN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 W09801755-A1
                                                                                                                                                                                                                                                                                                                                                   1 ctgggcagcaccaagtccggatgcagatc
                                                                                                sapiens
                                                                                                                                                                     immune/haematopoietic
                                                                                                                                             immune;
                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Page 66-67; 77pp;
                                                                                                                           gene
                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Niebuhr K,
                                                                                                                                           haematopoietic; immune/haematopoietic antigen; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             96US-0675815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97WO-US11669
                                                                                                                            therapy; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                         64.7%;
79.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Soriano
                                                                                                                                                                     antigen genomic sequence
                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                         Score 19.4;
Pred. No. 88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FORSCHUNG
CENT FRED
                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  559 G; 362 T; 3 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P,
                                                                                                                                                                                                                                                                                                                                    1064
                                                                                                                                                                                                                                                                                                                                                               29
                                                                                                                              metastasis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wehland
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MBH.
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                                                                                                                                                                                                                                                                                                                                                                                                                      19;
                                                                                                                                                                                                                                                                                                                                                                                          6;
                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                        SEQ
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                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                        NO:25022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   proteins
                                                                                                                                                                                                                                                                                                                                                                                          Gaps
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17-JAN-2001; 2001WO-US01354

09-AUG-2001

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2000US-0179065
2000US-0184664
2000US-0184664
2000US-018974
2000US-0199076
2000US-
   02-OCT-2000

02-OCT-2000

02-OCT-2000

13-OCT-2000

20-OCT-2000

20-OCT-2000

20-OCT-2000

20-OCT-2000

20-OCT-2000

20-OCT-2000

08-NOV-2000

09-NOV-2000

01-NOV-2000

01-DEC-2000

01-DEC-2000

08-DEC-2000

09-DEC-2000

09-DE
Nucleic acids useful for premetastasis -
                                                                           2001-483426/52.
                                                                                                                                                  HUMAN
     cids encoding .
                                                                                                                                                                                   2000US-024796
2000US-0237037
2000US-0237039
2000US-0241785
2000US-0241786
2000US-0241786
2000US-0241809
2000US-0241809
2000US-0244817
2000US-0244817
2000US-0246477
2000US-0246477
2000US-0246477
2000US-0246477
2000US-0246524
2000US-0246524
2000US-0246526
2000US-0246527
2000US-0246527
2000US-0246527
2000US-0246611
2000US-0246611
2000US-0246611
2000US-0246611
2000US-0249211
2000US-0251193
                                                                                                                                                    GENOME
                                                                                                               sc,
                                                                                                                                                    SCI
                 human immune/hematopoietic diagnosing and/or treating
                                                                                                               Ruben
                                                                                                               MS
                     cancers
                     polypeptides, and
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31-JAN-2000
24-FEB-2000
24-FEB-2000
24-FEB-2000
26-MAR-2000
117-MAR-2000
117-MAR-2000
27-JUN-2000
28-JUN-2000
29-JUN-2000
20-JUN-2000
20-JUN-2000
21-JUL-2000
21-JUL-2000
21-JUL-2000
21-JUL-2000
21-AUG-2000
21-SEP-2000
22-AUG-2000
21-SEP-2000
22-SEP-2000
23-SEP-2000
23-SEP-2000
24-SEP-2000
25-SEP-2000
26-SEP-2000
27-SEP-2000
29-SEP-2000

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В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     example, they may be used to treat disorders associated with decreased expression by rectifying mutations or deletions in a patient's genome that affect the activity of (I) by expressing inactive proteins or to supplement the patients own production of (I). Additionally, (I) polynucleotides may be used to produce the secreted (I), by inserting the nucleic acids into a host cell and culturing the cell to express the protein. (I) proteins and polynucleotides may be used to prevent, diagnose and treat immune/haematopoietic-related diseases, especially cancers and cancer metastases of haematopoietic antigen genomic sequences from the present human immune/haematopoietic antigen genomic sequences from the present invention. AAK9492 to AAK8450 and AAM82169
  The invention relates to an isolated nucleic acid detection reagent capable of detecting 1000 or more genes from Drosophila. The inventuseful in developmental biology and in elucidating cell signalling a
                                                                                                                                      WPI; 2001-656860/75.
P-PSDB; ABB63865.
                                                                                                                                                                                                                                   23-MAR-2000;
11-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                          Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                         Drosophila melanogaster expressed polynucleotide SEQ ID NO 18386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4858
                                                        Claim 1;
                                                                                    New isolated nucleic agenes from Drosophila interactions -
                                                                                                                                                                                                                                                                         23-MAR-2001; 2001WO-US09231
                                                                                                                                                                                                                                                                                                    27-SEP-2001
                                                                                                                                                                                                                                                                                                                                WO200171042-A2
                                                                                                                                                                                                                                                                                                                                                                                                Drosophila;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABL07968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABL07968 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          activity, and can be used in gene therapy and vaccine production. (I) proteins and polynucleotides may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate (I) expression. For
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                   pharmaceutical;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 7885 BP; 1659 A; 2265 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAK54951 to AAK64702 encode the human
                                                                                                                                                                                                        (PEKE )
                                                                                 interactions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 tgggcagcaccaagtccggatgcagatcc
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                                                                                                                                                                                                                                                                                                                                                                                                developmental biology; cell signalling; insecticide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                        ID NO
                                                                                                                                                                                                                                   2000US-191637P
2000US-0614150
                                                                                                                                                                                                                                                                                                                                                                                  gene;
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                                                       18386;
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                                                                                                                                                                             PWD,
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                                                    21pp + Sequence Listing; English.
                                                                                           detection reagent for elucidating ce
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                                                                                             cell
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                                                                                           for detecting 
ell signalling
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        The present sequence is that of cDNA encoding mouse osteoregulin (s AAB82919), a novel protein which plays a role in regulating bone homeostasis, adiposity, and the calcification of atherosclerotic plaques. The cDNA was isolated on the basis of hybridisation to rat osteoregulin cDNA, ad well as PCR and 3'RACE amplifications of mouse tibia cDNA. The invention provides osteoregulin proteins, nucleic acids which encode them, vectors, antibodies, host cells which express heterologous osteoregulins, and animal cells and mammals with a targeted disruption of an osteoregulin gene. The
                                                                                                                                                               Novel osteoregulin polypeptide useful for regulating bone homeos adiposity and calcification of atherosclerotic plaques comprises measuring the activity of osteoregulin - \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cell-cell interactions in higher eukaryotes for the development insecticides, therapeutics and pharmaceutical drugs. The inventi discloses genomic DNA sequences (ABL10176 ABL30511), expressed D sequences (ABL01840-ABL16175) and the encoded proteins (ABB57737-ABB72072).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Osteoregulin; movatherosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The sequence data for this patent did not form specification, but was obtained in electronic f at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                      Claim 4; Page 42-43; 90pp; English.
                                                                                                                                                                                                                      WPI; 2001-604111/69.
P-PSDB; AAB82919.
                                                                                                                                                                                                                                                          Brown
                                                                                                                                                                                                                                                                                   (PFIZ ) PFIZER PROD INC
                                                                                                                                                                                                                                                                                                            29-FEB-2000;
22-SEP-2000;
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2000US-234500P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mouse;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers 67..1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    osteoporosis;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 homeostasis; adipose; calcification;
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Pred. No. 1
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screening assays

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Matches 22
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                                                                                                                                                                                                                                                                                                                                                                                                                                       Pseudorabies virus; PRV; LLV; large latency transcript; attenuated virus; vaccine; early protein 0; EPO; HSV-1 protecting animals; deletion mutants; swine; ds.
                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                   CDS
New pseudorables virus mutants for use in vaccine - having a deletion and/or insertion in the early protein O gene or larvalatency transcript gene
                                                                            Cheung AK, Wesley RD;
                                                                                                  (USDA ) US
                                                                                                                        11-SEP-1992;
                                                                                                                                              11-SEP-1992;
                                                                                                                                                                     04-OCT-1994
                                                                                                                                                                                          US5352596-A
                                                                                                                                                                                                                           polyA_signal
                                                                                                                                                                                                                                                                                TATA_signal
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAQ73500;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          132 ctgggcggcaccaatgccgaatgaaga 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 ctgggcagcaccaagtccggatgcaga 27
                                                       1994-316187/39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and regeneration.
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22; Conservative
                                                                                                  SEC OF AGRIC
                                                                                                                                                                                                                                                                                                                                                                                                                   virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pseudorabies virus large latency transcript.
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                                                                                                                                                                                                              /note= "RNA
8382..8387
                                                                                                                         9205-0945283
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                                                                                                                                                                                                                                              /*tag=
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/note= "derived
622..6498
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                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                             /*tag= a
/note= "derived from PRV strain InFh"
                                                                                                                                                                                                                                                                    /*tag=
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                                                                                                                                                                                                                                                                                                       *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                63.3%;
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                                                                                                                                                                                                                                                                                            predicted
                                                                                                                                                                                                                                                                                                                            PRV strain
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1.3e+02;
                                                                                                                                                                                                                                                                                            amino
                                                                                                                                                                                                                                                                                            acid
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δÃ
                                                                                                                                                                                                                                          CC (LLT). The basic sequence is derived from PRV strain InFh and PRV cstrain Ka. The LLT overlaps and is transcribed in the opposite crientation with respect to the EPO (early polypeptide 0) and the CL immediately early gene (LE180). EPO is nonessential for replicatio, CL II is the only gene expressed during PRV lattency, and the IE180 cg ene is absolutely necessary for PRV replication. However there are CC 2 copies of IE180 in the genome. It is expected that PRV lacking one CC 2 copies of IE180 in the genome. It is expected that PRV lacking one CC in the IE180 copies is viable. Deletions in the non-overlapping CC regions of these 3 genes will generate single deletion routants, while deletions in overlapping regions will generate double deletion comutants. The invention is concerned with the construction of attenuated viruses which have a reduced ability to reactivate from latency. This can be achieved by functionally disabiling the expression of the EPO
                                                                        Query Match
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Matches 22
                                                                                                                                                                                                            gene, or
AAQ73501
4239
                                                                                                                                                              Sequence 8438 BP;
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                                    4
GCCAGCACCAAGTCCGGCTCCAGCACC 4213
                  ggcagcaccaagtccggatgcagatcc 30
                                                                          L Similarity
22; Conser
                                                                                                                                                                                                            by disrupting the synthesis of the LLT, or both (See also and {\tt AAR60620\hbox{-}24})
                                                                        63.3%;
nilarity 81.5%;
Conservative
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5;
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Result
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1: /cgn2_6/ptodata/1

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6: /cgn2_6/ptodata/1
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/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/BCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/backfiles1.seq:*
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 1 US-08-469-427A-8
2 US-08-609-443B-8
2 US-08-699-427A-4
2 US-08-609-443B-12
2 US-08-699-443B-12
2 US-08-699-43B-12
2 US-08-699-43B-1
2 US-08-699-43B-1
2 US-08-699-43B-1
2 US-08-699-43B-1
2 US-08-699-43B-1
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2 US-08-569-63C-6
2 US-08-569-63C-6
2 US-08-569-63C-6
2 US-08-569-63C-6
2 US-08-569-63C-6
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2 US-08-569-427A-6
2 US-08-136C-7
4 US-09-103-840A-1
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1 US-08-858-207A-136
1 US-08-641-627A-3
2 US-08-461-627A-3
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3 US-08-479-381A-11
US-08-479-381A-11
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161.778 Million cell updates/sec.
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Sequence 8, Appli
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Sequence 12, Appli
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lication US/0846942 918 ATION: Eriksson, Ulf Eriksson, Ulf Eriksson, Ulf Eriksson, Birgitta Alitalo, Kari Pajusola, Katri Alitalo, Kari Rejusola, Katri Lington: Evenson, McKeown, 200 G Street, N.W., hington  DABLE FORM: E Floppy disk IBM PC compatible FOCOS/MS- PATENTION: PC-DOS/MS- PATENTIN Release # ICATION DATA: N NUMBER: US/08/46 E: 06-JUN-1995 TION: 435 TION: 436 TION: 1050MATION: 06-JUN-1995 ATION INFORMATION: 07.005Ph D ON NUMBER: 26,269 DOCKET NUMBER: 419 ATION INFORMATION: 08.8860 (202) 628-8800 (202) 628-8844 R SEO ID NO: 8: RACTERISTICS: 05 base pairs E: cDNA	1338 2107 2107 2107 11873 11878 11878 11883 11883 11883 11883 11883 11383 1139 442 442 443 443 1130 11320 11320 11320 11320 11320 11320 11369
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US/08469427A  UIf Birgitta Kari Ratri VASCULAR ENDOTHELIAL GROWTH FACTOR-B DNA CODING THEREFOR 17 17 18: MCKGOWN, Edwards & Lenahan eet, N.W., Suite 700  MEET, N.W., Suite 700  PC-DOS/MS-DOS PC-DOS/MS-DOS PC-DOS/MS-DOS PC-DOS/MS-DOS 18: 18:05.769/469,427A  US/08/469,427A	US-09-097-231-11 US-07-795-855B-3 US-08-457-616-3 US-08-970-269A-32 US-09-407-562-3 US-08-970-269A-31 US-08-970-269A-28 US-08-09-407-562-28 US-08-673-758B-53 US-08-6464-1 US-08-646-1 US-09-310-293-1 US-08-641-038A-1 US-08-642-541-3 ALIGNMENTS
CTOR-B AND	Sequence 11, Appli Sequence 3, Appli Sequence 3, Appli Sequence 32, Appl Sequence 31, Appl Sequence 31, Appl Sequence 31, Appl Sequence 28, Appl Sequence 53, Appl Sequence 53, Appl Sequence 54, Appli Sequence 1, Appli

Query Match 89.3%; Best Local Similarity 93.3%; Matches 28; Conservative

Score 26.8; DB 1 Pred. No. 0.0081; 0; Mismatches

1;

Length 405; Indels

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Gaps

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RESULT 3
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US-08-609-443B-8
Sequence 8, Application US/08569063C Patent No. 5928939
                                                                                                                                                                                                        Query Match
Best Local Similarity
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                                                                                                                                                                                         Matches
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CURRENT APPLICATION DATA:
APPLICATION UMBER: US/08/609,443B
FILING DATE: 01-MAR-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/469,427
APPLICATION NUMBER: US 08/469,427
                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (202) 628-8844
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 405 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 1064/41979CP4
TELECOMMUNICATION INFORMATION:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear MOLECULE TYPE: cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 08/569,063 FILING DATE: 06-DEC-1995 ATTORNEY/AGENT INCOMMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 06-JUN-1995 PRIOR APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND TITLE OF INVENTION: DNA CODING THEREFOR NUMBER OF SEQUENCES: 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: ERIKSSON, Ulf
APPLICANT: OLOFSSON, Birgit
APPLICANT: ALITALO, Kari
APPLICANT: PAJUSOLA, Katri
                                                                                                             278 CTGGGCAACACCAAGTCCGAATGCAGATCC 307
                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: EVANS, Joseph D
REGISTRATION NUMBER: 2
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ALITALO, Kari
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Pred. No. 0.0081;
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Patent No.
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Best Local Similarity 93.3%;
Matches 28; Conservative
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APPLICATION NUMBER: US/08/569,063C
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 08/469,427
FILLING DATE: 06-JUN-1995
PRIOR APPLICATION UNMBER: US 08/397,651
APPLICATION UNMBER: US 08/397,651
APPLICATION INFORMATION:
NAME: EYANS, JOSEPH D
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 1064/41979C
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 628-8800
TELEPHONE: (202) 628-8800
                                                                                                                                                                                                                    GENERAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (202) 628-8844
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 405 base pairs
                                                                                              CORRESPONDENCE ADDRESS:
                                                                                            TITLE OF INVENTION: VASCULAR ENTITLE OF INVENTION: DNA CODING NUMBER OF SEQUENCES: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND TITLE OF INVENTION: DNA CODING THEREFOR NUMBER OF SEQUENCES: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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APPLICANT:
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CITY: Washington
STATE: DC
                                                ADDRESSEE: Evenson, McKeown, STREET: 1200 G Street, N.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
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o. 5607918
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ALITALO, Kari
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Pred. No. 0.
                                                Edwards & Lenahar
Suite 700
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; TISSUE TYPE: adult mouse heart
US-08-469-427A-4
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US-08-609-443B-4
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INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
SEQUENCE HARACTERISTICS:
1.ENGTH: 565 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 4, Application US/08609443B Patent No. 5840693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
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APPLICANT: ERIKSSON, Ulf
APPLICANT: OLOFSSON, Birgitta
APPLICANT: ALITALO, Kari
APPLICANT: PAJUSOLA, Katri
TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B
TITLE OF INVENTION: DNA CODING THEREFOR
APPLICATION NUMBER: US/08/609,443B
FILING DATE: 01-MAR-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
PRIOR APPLICATION DATA:
                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 57
CORRESPONDENCE ADDRESS:
ADDRESSEE: Evenson, McKeown, Edwards & Lenahan, P.L.L.C.
STREET: 1200 G Street, N.W., Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: 41979cp2 TELECOMMUNICATION INFORMATION:
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                                                                                                                           CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              273 CTGGGCAACACCAAGTCCGAATGCAGATCC 302
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REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 08/397,651 FILING DATE: 01-MAR-1995
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Pred. No. 0.
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SEQUENCE CHARACTERISTICS:
LENGTH: 565 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 4, Application US/08569063C Patent No. 5928939
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Best Local Similarity 93.3
Matches 28; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                               SOFTWARE: Patentin Release #1.0, VeCURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/569,063C
FILING DATE: 06-DEC-1995
                                                                                                                  FILING DATE: 06-DEC-1995

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/469,427

FILING DATE: 06-JUN-1995

PRIOR APPLICATION DATA:
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NAME: EVANS, JOSEPH D
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 100
TELECOMMUNICATION INFORMATION:
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 10
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: ALITALO, Kari
APPLICANT: PAJUSOLA, Katri
TITLE OF INVENTION: VASCULAR EN
TITLE OF INVENTION: DNA CODING
NUMBER OF SEQUENCES: 23
                                                  APPLICATION NUMBER: US 0 FILING DATE: 01-MAR-1995 ATTORNEY/AGENT INFORMATION: NAME: EVANS, Joseph D
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HYPOTHETICAL:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            273 CTGGGCAACACCAAGTCCGAATGCAGATCC 302
                                  NAME: EVANS, Joseph D
REGISTRATION NUMBER: :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: FILING DATE: 06-DEC
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                                                                                                                                                                                                                                                                                                                                       COUNTRY:
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set, N.W.,
                                                                                                      US 08/397,651
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                   1064/41979CP3
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Pred. No. 0.0085;
                                                                                                                                                                                                                                                                                                                                                                                       Edwards & Lenahan, P.L.L.C Suite 700
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                                                                                                                                                                                                                                     Version #1.25
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US-08-609-443B-12
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Best Local Similarity 93.3
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 12, Application US/08609443B Patent No. 5840693
                                                                                                                                                                                                       CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 08/397,651
FILING DATE: 01-MAR-1995
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 08/469,427
FILING DATE: 06-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 08/569,063
FILING DATE: 06-DEC-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (202) 628-8844 INFORMATION FOR SEQ ID NO:
                                                                TELEFAX: (202) 628-88
INFORMATION FOR SEQ ID NO:
                                                                                              REFERENCE/DOCKET NUMBER: 10
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 628-8800
                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
            SEQUENCE CHARACTERISTICS:
LENGTH: 624 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HYPOTHETICAL: NO
ORIGINAL SOURCE:
TISSUE TYPE: adult mouse heart
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND TITLE OF INVENTION: DNA CODING THEREFOR NUMBER OF SEQUENCES: 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: ERIKSSON, Ulf
APPLICANT: OLOFSSON, Birgitta
APPLICANT: ALITALO, Kari
APPLICANT: PAJUSOLA, Katri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: CD
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                                                                                                                                                   NAME: EVANS, Joseph D
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/08 FILING DATE: 01-MAR-1996
 STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS: single
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single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Edwards & Suite 700
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US-08-569-063C-12
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Best Local S
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                                                                                                                       TELEFAX: (202) 628-8844
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 624 base pairs
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                                                                                                                                                                                                                   APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
ATTORNEY_FAGENT INFORMATION:
NAME: EVANS, JOSEPH D
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 1064/419
              TISSUE TYPE:
                                            MOLECULE TYPE: CI
HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 08/469,427 FILING DATE: 06-JUN-1995 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/08 FILING DATE: 06-DEC-1995 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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TISSUE TYPE:
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APPLICANT: OLOFSSON, Birc
APPLICANT: ALITALO, Kari
APPLICANT: PAJUSOLA, Katı
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HYPOTHETICAL:
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ZIP: 200
                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0
                                                                                                                                                                                      TELEPHONE:
                                                                             TOPOLOGY:
                                                                                           TYPE: nucleic acid
STRANDEDNESS: single
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ALITALO, Kari
                                                                             linear
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                                                                                                                                                                                         (202) 628-8800
                mouse
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Pred. No. 0.0086;
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Query Match Best Local Similarity

89.3%; 93.3%;

Score 26.8; DB 2; Pred. No. 0.0086; 0; Mismatches 2;

Length 624;

0;

Gaps

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US-08-469-427A-1

Sequence 1, Application US/08469427A Patent No. 5607918

GENERAL INFORMATION:

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RESULT 10
US-08-609-443B-1
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Sequence 1, Application US/08609443B Patent No. 5840693
GENERAL INFORMATION:
APPLICANT: ERIKSSON, Ulf
APPLICANT: OLOFSSON, Birgitta
                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                          Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
ATTORNEY/AGENT INFORMATION:
NAME: Evans, Joseph D
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 41979cp2
TELECOMMUNICATION INFORMATION:
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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APPLICANT:
APPLICANT:
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US,
FILING DATE: 06-JUN-199
                                                                                                                                                                                                                                                                                                                                       HYPOTHETICAL: N
ORIGINAL SOURCE:
TISSUE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                     IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND TITLE OF INVENTION: DNA CODING THEREFOR NUMBER OF SEQUENCES: 17
                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE:
                                                                                                                                             184 CTGGGCAACACCAAGTCCGAATGCAGATCC 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STATE: DC
ZIP: 20005
                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE:
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                                                                                                                                                             1 ctgggcagcaccaagtccggatgcagatcc
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                                                                                                                                                                                                           28;
                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                 nucleic acid
EDNESS: single
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Alitalo, Kari
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                                                                                                                                                                                                           Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                      No
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93.3%;
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                                                                                                                                                                                                           0;
                                                                                                                                                                                                                        Score 26.8;
Pred. No. 0
                                                                                                                                                                                                           Mismatches
                                                                                                                                                                            30
                                                                                                                                                                                                                        .009;
                                                                                                                                                                                                                                       DB 1;
                                                                                                                                                                                                           'n
                                                                                                                                                                                                                                       Length 886;
                                                                                                                                                                                                          Indels
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RESULT 11
US-08-569-063C-1
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Best Local S
Matches 28
                                                                                                          Sequence 1, Application Patent No. 5928939
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 08/
ETILING DATE: 01-MAR-1995
PRIOR APPLICATION DATA:
APPLICATION UMBER: US 08/
ETILING DATE: 06-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION UMBER: US 08/
ETILING DATE: 06-DEC-1995
AFFORMEY/AGENT INFORMATION:
NAME: EVANS, JOSEPH D
REGISTRATION NUMBER: 26,26
REFERENCE/DOCKET NUMBER: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (202) 628-88 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: ALITALO, NALL
APPLICANT: PAJUSOLA, KALTİ
ATPLICANT: PAJUSOLA, KALTİ
TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND
TITLE OF INVENTION: DNA CODING THEREFOR
TITLE OF SECUENCES: 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: (202) 628-8800
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SOFTWARE: PatentIn Rel
CURRENT APPLICATION DATA:
               TITLE OF INVENTION:
                                                             APPLICANT: ERIKSSON, Ulf
APPLICANT: OLOFSSON, Bir
APPLICANT: ALITALO, Kari
                                                                                                                                                                                                                                                                                                                                                                                              IMMEDIATE SOURCE:
CLONE: pcif2
                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE:
HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 886 base pairs
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MEDIUM TYPE: Floppy disk
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   NUMBER
                                                  APPLICANT:
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CTTY: Washington
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                                                                                                                                                                                                                                                                                               Local Similarity hes 28; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
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                                                                                                                                                                                                                                             1 ctgggcagcaccaagtccggatgcagatcc 30
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                                                                                                                                              Application US/08569063C
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                                               PAJUSOLA, Katri
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93.3%;
               VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND DNA CODING THEREFOR
DNA CODING
23
                                                                               Birgitta
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CORRESPONDENCE ADDRESS:

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                                                                                                                                                                                                       Sequence 6, Application US/08469427A Patent No. 5607918 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 28; Conserv
                                                                                                 APPLICANT: Eriksson, Ulf
APPLICANT: Olofsson, Birgitta
APPLICANT: Alitalo, Kari
APPLICANT: Pajusola, Katri
TITLE OF INVENTION: VASCULAR EN
TITLE OF INVENTION: DNA CODING
NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (202) 628-8844 INFORMATION FOR SEQ ID NO:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGINAL SOURCE:
TISSUE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPULCULE TYPE: CD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 886 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 01-MAR-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                          IMMEDIATE SOURCE:
                               STATE: 20005
                                                                                                                                                                                                                                                                                                   184 CTGGGCAACACCAAGTCCGAATGCAGATCC 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: EVANS, Joseph REGISTRATION NUMBER:
                                                                              STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE:
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                                                                                       ADDRESSEE:
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                                                               Washington
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                                                                            E: Evenson, McKeown, Edwards & Lenahan 1200 G Street, N.W., Suite 700
                                                                                                                                                                                                                                                                                                                                                     Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         mouse embryo
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                                                                                                                                                                                                                                                                                                                                                              93.3%;
                                                                                                                    DNA CODING THEREFOR 17
                                                                                                                                            VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent No.
                                         FILING DATE: 01-MAR-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/
FILING DATE: 01-MAR-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: (202) 628-
TELEFAX: (202) 628-88
INFORMATION FOR SEQ ID NO:
                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR-B AND TITLE OF INVENTION: DNA CODING THEREFOR NUMBER OF SEQUENCES: 57
                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: ERIKSSON,
APPLICANT: OLOFSSON,
APPLICANT: ALITALO, K
APPLICANT: PAJUSOLA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGINAL SOURCE:
TISSUE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: CL
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CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   278 CTGGGCAACACCAAGTCCGAATGCAGGTAC 307
             APPLICATION NUMBER: US 08/469,427 FILING DATE: 06-JUN-1995
                                                                                                                       FILING DATE: 01-MAR-1996
                                                                                                                                                                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                             CITY: Washington
                                                                                                                                                                                                                                                                                                                                STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Evans, Joseph D
REGISTRATION NUMBER: 26
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                 ZIP:
                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                              ADDRESSEE: Evenson, McKeown, Edwards & Lenahan, P.L.L.C STREET: 1200 G Street, N.W., Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: FILING DATE: 06-JUN
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APPLICATION
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86.7%;
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In Release #1.0, Version #1.25
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                                                                            US 08/397,651
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ATTORNEY/AGENT INFORMATION:

EVANS,

APPLICATION NUMBER: US 0 FILING DATE: 06-DEC-1995

US 08/569,063

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US-08-569-063C-6
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Patent No. 592893
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                          APPLICATION NUMBER: US 08/397,651
FILING DATE: 01-MAR-1995
ATTORNEY/AGENT INFORMATION:
NAME: EVANS, JOSEPH D
REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 1064/41979CP3
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 628-8800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
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TELEFAX: (202) 628-8844 INFORMATION FOR SEQ ID NO: 6: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 26,269
REFERENCE/DOCKET NUMBER: 10
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                 APPLICATION NUMBER: US/OFFILING DATE: 06-DEC-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: VASCULAR THEREFOR INTERESTOR OF CHARACTERS: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGINAL SOURCE:
TISSUE TYPE: adult mouse heart
                                                                                                                                                                                                                                                               SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                       APPLICATION NUMBER: US 08/469,427 FILING DATE: 06-JUN-1995 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   278 CTGGGCAACACCAAGTCCGAATGCAGGTAC 307
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 591 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                             STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Evenson, McKeown, Edwards & Lenahan, P.L.L.C. STREET: 1200 G Street, N.W., Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 ctgggcagcaccaagtccggatgcagatcc 30
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                                                                                                                                                                                                                                                                                                                                                                                                           Washington
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OLOFSSON, Birgitta
ALITALO, Kari
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86.7%;
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                   TELEFAX: 309-685-4128
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                      TOPOLOGY: linear
MOLECULE TYPE: DNA
MOLECULE TYPE: NO
                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: Ribando, Curtis P
REGISTRATION NUMBER: 27976
TELECOMMUNICATION INFORMATION:
TELEPHONE: 309-685-4011 ext.513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: Pseudorable
TITLE OF INVENTION: Involving T
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
ADDRESSEB: Curtis P. Ribando
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TISSUE TYPE: adult mouse heart
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LENGTH: 8438 base pairs
TYPE: NUCLEIC ACID
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
                                                                               FEATURE:
                                                                                                                                                         ANTI-SENSE: NO ORIGINAL SOURCE:
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                                FEATURE
                                                                                                                             FEATURE:
                                                                                                                                                                                    HYPOTHETICAL:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
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CITY: Peoria
                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/07/945,283 FILING DATE: 19920911
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                                                                                                           NAME/KEY:
                                                                                                                                          ORGANISM:
                                                                                                                                                                                                                                STRANDEDNESS:
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LOCATION:
                 NAME/KEY:
                                               LOCATION:
                                                               NAME/KEY:
                                                                                              LOCATION:
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622..6495
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variation replace(1267,
                                             replace(1099,
                                                               variation
                                                                                                                                            Pseudorabies virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Floppy disk
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86.7%;
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                                             "g")
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FEATURE

NAME/KEY:

variation

NAME/KEY: LOCATION:

variation

replace(1381,

"c")

0;

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; FEATURE:
; NAME/KEY:
; LOCATION:
US-07-945-283-1
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                              TELEFAX: (617) 861-9540
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/784,472
FILING DATE: 24-OCT-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                              REGISTRATION NUMBER: 33,542
REFERENCE/DOCKET NUMBER: CMC
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 861-6240
                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                  MOLECULE TYPE: cDNA to mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: Control of the Apolipoprotein AI Gene NUMBER OF SEQUENCES: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Widom, Russell
   OTHER INFORMATION: OTHER INFORMATION:
                                NAME/KEY: CDS
IOCATION: 343..1584
                                                                                                               STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: FILING DATE: 08-JU
                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                   TOPOLOGY: linear
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22; Conservative
                                                                                                                                nucleic acid
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                                                                                                                                                 1748 base pairs
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                                                                                                                                                                                                                                                                                                                                                                              08-JUN-1994
                                                                                                                 double
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81.5%;
/product= "apolipoprotein
regulatory protein-1"
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Query Match

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Score 18.8;

DB 1;

Length 1748;

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RESULT 18
US-09-103-840A-2
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          Sequence 2, Application US/09103840A Patent No. 6294328
                                                                                                                                                                Query Match
Best Local :
                                                                                                                                                   Matches
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                                                                                                                                                                                                                                                                                                                                                              TELEFAX: 212-878-9655 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: Lambiris, Elias J.
REGISTRATION NUMBER: 33,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIA RELEASE #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESS:
ADDRESSEE: No. 60016390 No. 6001639disk of No. 6001639th America,
STREET: 405 Lexington Avenue, 64th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Takagi, Shinobu
TITLE OF INVENTION: No. 6001639el Endoglucanases
NUMBER OF SEQUENCES: 109
                                                                                                                                                                                                                                                                FEATURE
                                                                                                                                                                                                                                                                              MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
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                                                                                                                                                  Local Similarity
nes 19; Conserv
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ILECOMMUNICATION THE
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LOCATION:
                                                                                                                                                                                                                                                                                                    STRANDEDNESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: FILING DATE: 21-MA
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INFORMATION:
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Ihara, Michiko
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Schulein, Martin
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                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                        212-867-0123
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                                                                                                                                                                                                                                                                                                        single
                                                                                                                                                                61.3%;
95.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ruby I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        76.78;
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0; Mismatches
                                                                                                                                                                Score 18.4;
Pred. No. 23;
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                                                                                                                                                  Mismatches
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; LENGTH: 4411529
; TYPE: DNA
; ORGANISM: Mycobacterium tuberculosis
; OTHER INFORMATION: H37RV
US-09-103-840A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 19
US-09-103-840A-1
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                                                                                                                          US-08-858-207A-136
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APPLICANT: VENTER, John C.
TITLE OF INVENTION: DNA SEQUENCES FOR STRAIN
TITLE OF INVENTION: TUBERCULOSIS
FILE REFERENCE: 24366-20007.00
CURRENT APPLICATION NUMBER: US/09/103,840A
CURRENT FILING DATE: 1998-06-24
NUMBER OF SEQ ID NOS: 2
SOFTWARE: Patentin Ver. 2.1
                                                                                       Sequence 136, Application US/08858207A Patent No. 6348328
                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
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Best Local S
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: FLEISCHWAN, Robert D.
APPLICANT: WHITE, Owen R.
APPLICANT: FRASER, Claire M.
APPLICANT: VENTER, JOHN C.
TITLE OF INVENTION: DNA SEQUENCES FOR STRAIN ANALYSIS IN MYCOBACTERIUM TITLE OF INVENTION: TUBERCULOSIS
FILE REFERENCE: 24366-20007.00
CURRENT APPLICATION NUMBER: US/09/103,840A
CURRENT FILING DATE: 1998-06-24
NUMBER OF SEQ ID NOS: 2
                                                                    GENERAL INFORMATION:
                                                                                                                                                                                           APPLICANT: FLEISCHMAN, Robert D. APPLICANT: WHITE, Owen R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       77236 ttggcagaacgatgtcgggatgcaggtc 77263
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TYPE: DNA
ORGANISM: Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: CDC 1551
OTHER INFORMATION: "n" bases at various positions throughout the sequence
OTHER INFORMATION: represent a, t, c or g
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                  APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                   Local Similarity 78.6 nes 22; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
Hodgson, John
Knowles, David
Nicholas, Richard
                                                     Black, Michael
                                                                                                                                                                                                                                                                                  61.3%;
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78.6%;
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                                                                                                                                                                                                                                                                                  Score 18.4;
Pred. No. 48;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 18.4;
Pred. No. 48;
                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FOR STRAIN ANALYSIS IN MYCOBACTERIUM
                                                                                                                                                                                                                                                                                                      DB 4;
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RESULT 21
US-08-464-700-53/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO:
          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/464,700
FILING DATE: 7-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/017670
FILING DATE: 14-MAY-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1021 TGGGCTGCACCAAATCCTGTTGCACA 1046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 1096 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE: 610-270-4478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: FastSEQ for Windows Version CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 552
CORRESPONDENCE ADDRESS:
ADDRESSEE: Smithkline Beecham Corporation
STREET: 709 Swedeland Road
                                                                                                                                                                                                                                                                 APPLICANT: WEISS, ANTHONY S
APPLICANT: MARTIN, STEPHEN L
TITLE OF INVENTION: SYNTHETIC POLYNUCLEOTIDES
NUMBER OF SEQUENCES: 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Stodola, TITLE OF INVENTION:
                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS
                                                                                                                                                                             STREET: Spring House
CITY: Spring House
STATE: Pennsylvania
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Gimmi, Edward R
REGISTRATION NUMBER: 38
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 09 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM CON
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: King of Prussia
STATE: PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: USA
ZIP: 19406-0939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER:
                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: 610-270-5090
CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 tgggcagcaccaagtccggatgcaga 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                  19477
                                                                                                                                                                                                                   Spring House Corporate Cntr, PO Box 457
                                                                                                                                                                    USA
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                                                                                                                                                                                                                                  Howson and Howson
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               No. 6348328el Compounds 552
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Pred. No.
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                                                                 #1.25
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PRIOR APPLICATION DATA:

APPLICATION NUMBER:

FILING DATE:

22-DEC-1992

AU PL6520

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US-08-641-627A-37/c
; Sequence 37, Application US/08641627A
; Patent No. 5726040
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                                                              ATTORNEY AGENT INFORMATION:

NAME: Jarrell Ph.D., Brenda H.

REGISTRATION NUMBER: 39,223

REFERENCE/DOCKET NUMBER: 0062912

TELECOMMUNICATION INFORMATION:

TELEPHONE: (617) 248-5000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 31,215
REDERENCE/DOCKET NUMBER: GHC
TELECOMMUNICATION INFORMATION:
TELEPHONE: 215-540-9200
TELEPHONE: 215-540-5818
INFORMATION FOR SEQ ID NO: 53:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: AU PL9661
FILING DATE: 28 JUN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/AU93/00655
FILING DATE: 16-DEC-1993
ATTORNEY_AGENT INFORMATION:
NAME: Bak, Mary E.
                                TELEFAX: (617) 248-4000 INFORMATION FOR SEQ ID NO: 37:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: 11DELL MOLECULE TYPE: CDN
                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIAN PC-DATE: 0.7 Version
CURRENT APPLICATION DATA: ease #1.0, Version
APPLICATION NUMBER: US/08/641,627A
FILLING DATE: 02-MAY-1996
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                               ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Ensley PhD, Burt D.
APPLICANT: Ludmer, Matthew
TITLE OF INVENTION: Cosmetic Compositions Including
TITLE OF INVENTION: Tropoelastin Isomorphs
NUMBER OF SEQUENCES: 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE NO TOWNSE: NO
SEQUENCE CHARACTERISTICS:
LENGTH: 2242 base pair
                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 80.8 es 21; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                           Boston
                                                                                                                                                                                                                                                                                                                                                                          MA
                                                                                                                                                                                                                                                                                                                                                                                                          53 State Street
                                                                                                                                                                                                                                                                                                                                                        usa
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Pred. No.
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; ORIGINAL SOURCE:
; STRAIN: tropoelastin cDNA (cHE-3)
US-08-641-627A-37
                                                                            US-08-678-039A-39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-678-039A-39/c
Query Match
Best Local Similarity
Matches 21; Conserv
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Best Local Similarity
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                                                                                                                                                                                                                                                                                     TELEFAX: 202-783-6031 INFORMATION FOR SEQ ID NO:
                                                                                                                                    ORIGINAL SOURCE:
ORGANISM: Hom
                                                                                                                                                                MOLECULE N
HYPOTHETICAL: N
                                                                                                                                                                               MOLECULE TYPE: CD
                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 2427 base pairs
                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION: TELEPHONE: 202-624-1589
                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
NAME: Saxe, Stephen A.
REGISTRATION NUMBER: 38,
                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1714 GCCAGCACCAAGCCCAGCTGCAGCTC 1689
                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Keating, Mark T. APPLICANT: Morris, Colleen A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TREET: 555 Thirteenth Street, N.W., Suite 701 East STREET: Tower CITY: Washington
                                                                                          NAME/KEY: CDS
LOCATION: 49.
                                                                                                                                                                                                                                                                                     TELEPHONE: 202 - TELEPHONE: 202-783-6031
                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/08/678,039A FILING DATE: 10-JUL-1996 CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                          STRANDEDNESS:
                                                                                                                                                                                                                                         TYPE: nucleic acid
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EDNESS: both
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 60.0%; ilarity 80.8%; Conservative
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                                                                                                                                    Homo sapiens
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                                                                                                                                                                                                                             double
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60.0%;
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                                                                                                                                                                                                                                                                                       39:
 ; Score 18; DB; Pred. No. 56; 0; Mismatches
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Pred. No.
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RESULT 25
US-08-475-637-3/c
; Sequence 3, Application US/08475637
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US-08-044-812A-3/c
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                                                                                                                                Matches
                                                                                                                                                         Query Match
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INFORMATION FOR SEQ ID NO:
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APPLICANT:
APPLICANT:
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08/044, FILING DATE: CLASSIFICATION: 435
ATTORNEY/ACENT INFORMATION: NAME: NO. 5837521nan, Kevin E REGISTRATION NUMBER: 35,303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
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CTTY: Chicago
                                                                                                                                                                                                                                                                                                                                            OLECULE TYPE: CDNA
                                                                           292
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DEDNESS: single
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10 South Wacker Drive, Suite 3000
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Roselli-Rehfuss, Linda
                                                                                                                                Conservative
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298..1269
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Robbins, Linda S
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                                                                                                                                            59.3%;
75.9%;
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Pred. No. 62;
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RESULT 26
US-08-706-281A-11/c
; Sequence 11, Application US/08706281A
; Patent No. 6100048
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; LOCATION:
US-08-475-637-3
                                                                                                                                                  Query Match
Best Local Similarity
Matches 22; Conserv
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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APPLICANT: I
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-715-1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: NO. 5994087nan, Kevin
REGISTRATION NUMBER: 35, 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 435
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US/08/044,812
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION:
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                                                                                           292 TCGGCGGGACCAGTTCCGGCTGCAGCTCC 264
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TOPOLOGY: linear
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TELEFAX: 312-715-1234
TELEX: 910-221-5317
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ZIP: 60606
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                                                                                                            2 tgggcagcaccaagtccggatgcagatcc 30
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Robbins, I
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298..1269
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75.9%;
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Pred. No. 62;
0; Mismatches
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GENERAL INFORMATION:

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APPLICANT:

Cone, Roger D Fan, Wei

Boston, Bruce A

APPLICANT:

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RESULT 27
US-09-191-359-3/c
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                                                                                                                                            Sequence 3, Application US/09191359 Patent No. 6261838 GENERAL INFORMATION:
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Best Local
                                                                                                                                                                                                                                                                                                                             Matches
                                                                       GENERAL INFORMATION:
APPLICANT: Cone, Roger D
APPLICANT: Roselli-Rehfuss, Linda
APPLICANT: Mountjoy, Kathleen G
APPLICANT: Robbins, Linda S
APPLICANT: Robbins, Linda S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: NO. 6100048nan, Kevin E
REGISTRATION NUMBER: 35,303
REFERENCE/DOCKET NUMBER: 96,8
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-913-0001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Chen, Wenl
TITLE OF INVENTION: ITTLE OF INVENTION: ITTLE OF INVENTION: ITTLE OF INVENTION: INUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
                  CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION: FEATURE:
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                                 NUMBER OF SEQUENCES:
                                               TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                             Local Similarity
les 22; Conserv
 ADDRESSEE:
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Lu, Dongsi
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298..1269
Allegretti & Witcoff, Ltd
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75.9%;
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                                             Mammalian Melanocyte Stimulating Hormone Receptors and Uses
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Pred. No. 62;
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US-09-097-231-11/c
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                                                                                                                                                                                          Sequence 11, Application US/09097231 Patent No. 6278038 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                     Query Match 59.3%;
Best Local Similarity 75.9%;
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TELEX: 910-221-5317
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/475
FILING DATE: 07-JUN-1995
APPLICATION NUMBER: US/08/044
FILING DATE: 04-APR-1993
ATTORNEY/AGENT INFORMATION:
NAME: NO. 6261838nan, Kevin EREGISTRATION NUMBER: 35,303
REFERENCE/DOCKET NUMBER: 92,8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: FC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-715-1000
TELEFAX: 312-715-1234
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                                                                                          292 TCGGCGGGACCAGTTCCGGCTGCAGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: 10 Sou
CITY: Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION:
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                                                                                                                                                                                                                                                                                                                                 2 tgggcagcaaccaagtccggatgcagatcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION:
                                                                                                                                                          APPLICANT: Cone, Roger D
Chen, Wenbiao
                                                                                                                            Low, Malcolm J TITLE OF INVENTION: Mammalian Melanocortin Receptor and Uses
                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                           NUMBER OF SEQUENCES:
CITY: Chicago
STATE: Illinois
COUNTRY: USA
ZIP: 60606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60606
                                                              STREET: 300 South Wacker Drive
                                                                               ADDRESSEE: McDonnell Boehnen Hulbert & Berghoff
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1270..1338
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298..1269
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                                                                                                                                                                                                                                                                                                                                                                                                        Score 17.8;
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COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compati

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NAME/KEY: 3'UTR
LOCATION: 1270..1338
SEQUENCE DESCRIPTION: SEQ ID NO:
US-09-097-231-11
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US-07-795-859B-3/c
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Best Local Similarity
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INFORMATION FOR SEQ ID NO: 11:
                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC DOS/MS-DOS
SOFTWARE: ASCII-DOS
CURRENT APPLICATION DATA:
URGAN TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO THE TOP TO T
                                                                           APPLICATION NUMBER: US/07
FILING DATE: 18-NOV-1991
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White and Durkee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: Steroid 5'-Reductases NUMBER OF SEQUENCES: 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: F.C
STREET: F.C
TTTY: Houston
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Arnola, was STREET: P.O Box 4433
                     NAME: Parker, David REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 tgggcagcaccaagtccggatgcagatcc 30
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FILING DATE: 12-Jun-1998
CLASSIFICATION: -CUNKNOWN'>
ATTORNEY/AGENT INFORMATION:
NAME: NO. 6278038nan, Kevin E
REGISTRATION NUMBER: 35,303
REFERENCE/DOCKET NUMBER: 96,886-C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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TELEPHONE: 312-913-0001
TELEFAX: 312-913-0002
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LENGTH: 1338 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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STRANDEDNESS: single
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David L. 32,165
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1..297
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298..1269
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75.9%;
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Pred. No. 62;
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; LOCATION:
JS-08-457-616-3
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (512) 474-7677 INFORMATION FOR SEQ ID NO:
                                                                                                                                        TELEFAX: (512) 474-76
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                   SOFTWARE: ASCII-DOS
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/457,616
FILING DATE: 01-JUN-1995
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: DNA (genomic) FEATURE:
                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07
FILING DATE: 18-NOV-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1430 CTGGGCTGGAACAAGTCCAGATGC 1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: UTSD:260/PAR TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Anderson, Stefan
APPLICANT: Russell, David W.
TITLE OF INVENTION: Steroid 5 - Reductases
NUMBER OF SEQUENCES: 37
                                          FEATURE:
                                                      TOPOLOGY: 1. MOLECULE TYPE:
                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
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LOCATION:
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                                                                                                                                                                                                NAME: Parker, David L.
REGISTRATION NUMBER: 32,165
REFERENCE/DOCKET NUMBER: UTSD:260/PAR
                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: P
SOFTWARE: ASCII-DOS
                                                                                                                                                                     TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: US
ZIP: 77210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
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                         NAME/KEY:
                                                                                STRANDEDNESS:
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                                                                                         nucleic acid
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31..807
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                                                                     linear
                                                                                                                                                       (512) 320-7200
512) 474-7677
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                                                     DNA (genomic)
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Pred. No. 81;
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US-09-407-562-32
; Sequence 32, Application US/09407562
; Patent No. 6294334
; GENERAL INFORMATION:
; APPLICANT: Katheryn Meek
; TITLE OF INVENTION: Genetic Test For Equine Severe
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; Sequence 32, Appli
; Patent No. 5976803
                                                                                                RESULT 32
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Best Local Similarity
Whiches 20; Conserve
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MEDIUM TITLE

COMPUTER: Apple
COMPUTER: Apple
OPERATING SYSTEM: Macintosh
SOFTWARE: Microsoft Word for Macintosh
SOFTWARE: NO. DATA:
CURRENT APPLICATION NUMBER: US/08/970, 269A
APPLICATION NUMBER: US/08/970, 269A
APPLICATION NUMBER: No. 5976803ember 14, 1997
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Best Local Similarity
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INFORMATION FOR SEQ ID NO: 32:
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ANTI-SENSE: no
                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE:
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MEDIUM TYPE: Floppy disk
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TITLE OF INVENTION: Genetic Test For Equine Severe
TITLE OF INVENTION: Combined Immunodeficiency Disease
                                                                                                                                               5519 GCAGCAGCAAGTGGGGATTCAGAT 5542
                                                                                                                                                                                                                                                                                                                   ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Adler Ph.D., Benjamin A.
REGISTRATION NUMBER: 35,423
REFERENCE/DOCKET NUMBER: D5860
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Dr. Benjamin A. Adler
STREET: 8011 Candle Lane
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                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: n
                                                                                                                                                                                                                                                                                                                                                                                             TYPE: nucleic acid
STRANDEDNESS: double stranded
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: 713-777-6908
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83.3%;
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83.3%;
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Pred. No. 81;
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Pred. No. 1
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RESULT 33
US-08-970-269A-31
; Sequence 31, Application US/08970269A
; Patent No. 5976803
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Best Local Similarity
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TELEFAX: 713-777-6908
INFORMATION FOR SER TORROR
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HYPOTHETICAL: n
ANTI-SENSE: no
                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                     APPLICANT: Katheryn Meek
TITLE OF INVENTION: Genet
TITLE OF INVENTION: Comb
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: Apple
OPERATING SYSTEM: Macintosh
SOFTWARE: Microsoft Word for Macintosh
CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Dr. Benjamin A. Adler STREET: 8011 Candle Lane
                                                                                                                                                                     NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Adler Ph.D., Benjamin A.
REGISTRATION NUMBER: 35,423
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APPLICATION NUMBER: 08/970,269
FILING DATE: NO. 6294334ember 14,
CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE:
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LENGTH: 11873 bp
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                                                                    COUNTRY: USA
ZIP: 77071
                                                                                                                  STREET: 8011 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: nucleic acid
STRANDEDNESS: double stranded
TOPOLOGY: linear
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COMPUTER: Apple OPERATING SYSTEM:
                                                                                                                                                        ADDRESSEE:
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                                                                                                                                    E: Dr. Benjamin A. Adler
8011 Candle Lane
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83.3%;
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                                                                                                                                                                                                         Combined
 Macintosh
                                                                                                                                                                                                         Genetic Test For Equine Severe Combined Immunodeficiency Disease
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Pred. No. 1e
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SOFTWARE: Microsoft Word for Macintosh CURRENT APPLICATION DATA:

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US-09-407-562-31
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INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 11878 bp
TYPE: nucleic acid
TYPE: nucleic acid
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Patent No. 6294334
GENERAL INFORMATION:
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Best Local Similarity
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INFORMATION FOR SEQ ID NO:
                                      ATTORNEY/AGENT INFORMATION:
NAME: Adler Ph.D., Benjamin A.
REGISTRATION NUMBER: 35,423
REFERENCE/DOCKET NUMBER: D5860
TELECOMMUNICATION INFORMATION:
                                                                                                                     FILING DATE:
CLASSIFICATION:
CLASSIFICATION DATA:
PRIOR APPLICATION UNBER: 08/970,269
FILING DATE: No. 6294334ember 14, 1997
CLASSIFICATION:
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ANTI-SENSE: no
ORIGINAL SOURCE:
                                                                                                                                                                                                                                   COMPUTER: Apple
OPERATING SYSTEM: Macintosh
SOFTWARE: Microsoft Word for Macintosh
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 32
CORRESPONDENCE ADDRESS:
ADDRESSEE: Dr. Benjamin A. Adler
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NAME: Adler Ph.D., Benjamin A.
REGISTRATION NUMBER: 35,423
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION:
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 TELEPHONE: /13-777-6908
                                                                                                                                                                                                                                                                                                                                                                      CITY: Houston
STATE: Texas
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                                                                                                                                                                                                                         APPLICATION NUMBER: US/09/407,562
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83.3%;
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Combined Immunodeficiency Disease
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Pred. No. 16
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Query Match
Best Local Similarity
"hes 20; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 35
US-08-970-269A-28
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                                                                                                                                                                                                                                                               DESCRIPTION: NAME OF THE PROTHET I CAL: NAME OF THE PROTHET I CAL: NAME OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PROTHET OF THE PR
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NAME: Adler ph.D., Benjamin A.
REGISTRATION NUMBER: 35,423
REFERENCE/DOCKET NUMBER: D5860
TELECOMMUNICATION INFORMATION:
TELEPHONE: 713-777-2321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5519 GCAGCAGCAAGTGGGGATTCAGAT 5542
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Dr. Benjamin A. Adler
STREET: 8011 Candle Lane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DESCRIPTION: HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION:
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TTMY: Houston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/08/970,269A FILING DATE: No. 5976803ember 14, CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
STRANDEDNESS: doubl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: Apple
OPERATING SYSTEM: Macintosh
SOFTWARE: Microsoft Word for Macintosh
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DEDNESS: double stranded
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83.3%;
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Combined Immunodeficiency Disease
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Pred. No. 16
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Conservative

58.7%;

Score 17.6; DB 2; Length 11883; Pred. No. 1e+02; 0; Mismatches 4; Indels 0;

Gaps

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; ANTI-SENSE: no
; ORIGINAL SOURCE:
US-09-407-562-28
                                                                                                        US-08-483-528B-53
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Best Local S
Matches 20
                                                          Sequence 53, Applicat Patent No. 5939532 GENERAL INFORMATION:
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GENERAL INFORMATION:
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NAME: Adler Ph.D., Benjamin A.
REGISTRATION NUMBER: 35,423
REFERENCE/DOCKET NUMBER: D5860
TELECOMMUNICATION INFORMATION:
TELEPHONE: 713-777-2321
TELEPHONE: 713-777-6908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: 713-777-6908
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
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OPERATING SYSTEM: Macintosh
SOFTWARE: Microsoft Word for Macintosh
CURRENT APPLICATION DATA:
                                                                                                                                                                        5521 GCAGCAGCAAGTGGGGATTCAGAT 5544
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PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: 08/970,269
FILING DATE: No. 6294334ember 14, 1997
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MEDIUM TYPE: Floppy disk
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TITLE OF INVENTION:
NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                      Local Similarity nes 20; Conserv
                                                                                                                                                                                                                                                                                                                                                                            DESCRIPTION:
                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: nucleic acid
STRANDEDNESS: double stranded
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                                                                                           Application US/08483528B
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NAKAMURA, KAZUYASU
KOIKE, MASAMICHI
SHITARA, KENYA
HANAI, NOBUO
                                                                                                                                                                                                                                                                                                                                                                                                                                                             11883
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8011 Candle Lane
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Combined Immunodeficiency Disease
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Pred. No. 16
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RESULT 38
US-08-673-799C-53
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                              ; Patent No.
                                                                                                                                                                                   Query Match
Best Local S
Matches 22
                      Sequence 53, Apprix
Sequence 50, Apprix
Sequence 53, Apprix
Sequence 5042828
GENERAL INFORMATION:
APPLICANT: NAKAMU
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 442 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: other nucleic acid DESCRIPTION: /desc = "synthetic DNA" ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)816-4000
TELEFAX: (703)816-4100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: HASEGAWA, MAMORU
TITLE OF INVENTION: HUMANIZED ANTIBODIES
NUMBER OF SEQUENCES: 103
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                         FEATURE:
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                                                                                                                         124 CTGACCTGCACCGTGTCCGGATACACATTC 153
                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: domain LOCATION: 50..66 IDENTIFICATION METHOD: OTHER INFORMATION: /pi
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                                                                                                                                                                                                                                                                                           LOCATION: 99..109
IDENTIFICATION METHOD:
                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: domain
LOCATION: 31..35
IDENTIFICATION METHOD:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: sig_peptide LOCATION: -19..-1
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                                                                                                                                                                                    l Similarity 73.3
22; Conservative
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                                              Application US/08673799C
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                           domain
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                                                                                                                                                                                                   57.3%;
73.3%;
                                                                                                                                                                                                                                                                             /product=
                                                                                                                                                                                                                                                                                                                                                                                                                                D: by similarity with known sequence
/product= "CDR1"
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oduct= "CDR3"
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                                                                                                                                                                                                   Score 17.2;
Pred. No. 95
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                                                                                                                                                                                      Mismatches
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                                                                                                                                                                                                                Length 442;
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APPLICANT:
APPLICANT:
APPLICANT:

HANAI,

NAKAMURA, KAZUYAS KOIKE, MASAMICHI SHITARA, KENYA

KAZUYASU

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NAME/KEY: domain
LOCATION: 99..109
LIDENTIFICATION METHOD: by similarity with
OTHER INFORMATION: /product= "CDR3"
US-08-673-799C-53
                                               Patent No. 5266464;
APPLICANT: HOUSEY, GERARD
TITLE OF INVENTION: METHOD OF
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                                                                                                RESULT 39
5266464-1
                                           ÄND
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Best Local
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INFORMATION FOR SEQ ID NO:
ACTIVATORS
NUMBER OF SEQUENCES: 3
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ZIP: 22201-4714
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 442 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOUTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: linear
MOLECULE TYPE: other nucleic acid
DESCRIPTION: /desc = "Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)816-4000
TELEFAX: (703)816-4100
FORMATION FOR SEQ ID NO: 53:
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                                                                                                                                                   APPLICATION NUMBER: US FILING DATE: 27-JUN-96 CLASSIFICATION: 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: U.S.A. ZIP: 22201-4714
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                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: domain
LOCATION: 50..66
IDENTIFICATION METHOD:
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                                                                                                                                                                                                                       Local Similarity
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IDENTIFICATION METHOD:
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73.3%;
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/product= "CDR2"
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  US/07/392,073
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Pred. No. 95;
0; Mismatches
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  SOFTWARE:
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; ORGANISM: Staphylococcus aureus US-09-310-293-1
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FRIOR APPLICATION DATA:
APPLICATION NUMBER: 154,206
FILING DATE: 10-FEB-1988
SEQ ID NO:1:
LENGTH: 2599
            FILE REFERENCE: GM10000
CURRENT APPLICATION NUMBER: US/09/579,376
CURRENT FILING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: 09/310,293
PRIOR FILING DATE: 1999-05-12
PRIOR APPLICATION NUMBER: 60/086,579
PRIOR FILING DATE: 1998-05-22
NUMBER OF SEQ ID NOS: 2
                                                                                                                                                                                                                                                                                                                                                                   US-09-579-376-1
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Best Local Similarity 73.3
Matches 22; Conservative
                                                                                                                                                                                                                                                                                                                      Sequence 1, Application US/09579376 Patent No. 6316237
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Best Local Similarity
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                                                                                                                                                                             APPLICANT: Warren, Richard L.
APPLICANT: Van Horn, Stephanie
APPLICANT: Traini, Christopher M.
APPLICANT: Mathie, Thomas B.
TITLE OF INVENTION: Respiratory nitrate reductase alpha
TITLE OF INVENTION: subunit
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CURRENT FILING DATE: 1999-05-12
EARLIER APPLICATION NUMBER: 60/086,579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: Respiratory nitrate reductase TITLE OF INVENTION: subunit FILE REFERENCE: GM10000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Warren, Richard L.
APPLICANT: Van Horn, Stephanie
APPLICANT: Traini, Christopher M.
APPLICANT: Mathie, Thomas B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EARLIER FILING DATE: 1998-05-22 NUMBER OF SEQ ID NOS: 2
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for Windows Version
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73.3%;
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73.3%;
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Pred. No. 1
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1.2e+02;
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                                                                                                                                 ; NAME/KEY:
; LOCATION:
US-08-641-038A-1
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US-08-641-038A-1
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                                                        Best Local Similarity Matches 20; Conserv
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Best Local Similarity
                                                                                      Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 4330
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 22040-0747
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Re-lease #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: MURPHY JR, GERALD M
REGISTRATION NUMBER: 28,9;
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                                                                                                                                                                             FEATURE:
                                                                                                                                                                                           MOLECULE TYPE: other nucleic acid
                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: TANAKA, HIDEHIKO APPLICANT: INOUE, HIROYUKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
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385
                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/08/641,038A FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: PO BOX 747
CITY: FALLS CHURCH
                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 0020-3989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                     STRANDEDNESS:
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               1 ctgggcagcaccaagtccggatgca 25
                                                                                                                                                                                                                                                    ENGTH:
CTGGGCAACACCCTGTACGGCTGCA 409
                                                                                                                                                                                                                                    nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INAGAKI, KENJI
ESAKI, NOBUYOSHI
VENTION: RECOMBINANT L-METHIONINE GAMMA-LYASE
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                                                        Conservative
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80.0%;
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73.3%;
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                                                                                    Score 17;
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Pred. No. 1.3e+02;
                                                                        Pred. No. 1.4e+02;
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                                                        Mismatches
                                                                                      DB 2;
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                                                                                      Length 1320;
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                                                        Gaps
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RESULT 43

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US-08-642-541-1
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                                                                                  GENERAL INFORMATION:
APPLICANT: YUYING, TAN
TITLE OF INVENTION: METH
TITLE OF INVENTION: METH
TITLE OF INVENTION: THER
                                                                                                                                                                      Sequence 1, Application US/08642541 Patent No. 5891704
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Best Local Similarity
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: IBM PC compatible
TAMPUTER: IBM PC compatible
TAMPUTER: PC-DOS/MS-DOS
TAMPUTER: PC-DOS/MS-DOS
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TELEFAX: (703) 205-8050
INFORMATION FOR SEQ ID NO: 1:
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APPLICANT: INOUE, HIROYUKI
APPLICANT: INAGAKI, KENJI
APPLICANT: INAGAKI, KENJI
APPLICANT: ESAKI, NOBUYOSHI
APPLICANT: ESAKI, NOBUYOSHI
APPLICANT: ESAKI, NOBUYOSHI
                                                  CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: MURRHY JR, GERALD M
REGISTRATION NUMBER: 28,977
REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                  NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: other nucleic acid
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CITY: FALLS CHURCH
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                 STREET:
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              2000 Pennsylvania Avenue,
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                                  MORRISON & FOERSTER
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Pred. No. 1.4e+02;
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ZIP: 20006-1888 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk

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Best Local Similarity
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TELEX: 90-4030
INFORMATION FOR SEQ ID NO: 1:
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TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/642,541
FILING DATE: 03-MAY-1996
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Millman, Robert A.
REGISTRATION NUMBER: 36,217
REFERENCE/DOCKET NUMBER: 31276-20002.21
                                                                                                                                                              COUNTRY: USA
ZIP: 20006-1888
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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REFERENCE/DOCKET NUMBER: 31
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 887-1500.
TELEPAX: (202) 822-0168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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LENGTH: 1369 base pair
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                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE:
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2000 Pennsylvania Avenue, NW
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METHIONINASE, PURIFIED RECOMBINANT METHIONINASE PRODUCED
THEREFROM AND USES THEREOF
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Pred. No. 1.4e+02;
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Query Match
Best Local Similarity
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                                                                                                                                                                             ; ANTI-SENSE: US-08-642-541-3
                                                                                                                                                                                                                                                                  TELEFAX: (202) 822-016
TELEX: 90-4030
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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nucleic acid
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Pred. No. 1.4e+02;
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BE578204 rk09b07.y
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BH38943 ra68a06.r
BH38943 ra68a06.r
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Result
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KEYWORDS
SOURCE
ORGANISM
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AW784595
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                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                         ACCESSION
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JOURNAL
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1 (bases 1 to 405)

1 (bases 1 to 405)

MCComble, W.R., See,L.-H., Baker,J.P., Bahret,A., Deum., McComble,W.R., See,L.-H., King,L., Kirchoff,K.A., Miller,B., Bastide,M., Huang,E.N., King,L., Ereston,R.R., Rodriguez,M.A., Nascimento,L.U., O'Shaughnessy,A.L., Preston,R.R., Rodriguez,M.A., Nascimento,L.U., O'Shaughnessy,A.L., Toth,K., Vil,M.D. and Hannon Shekher,M., Spiegel,L.A., Toth,K., Vil,M.D. and Hannon
                                                                                                               Lita Annenberg Hazen Genome Sequencing Center Cold Spring Harbor Laboratory PO Box 100, Cold Spring Harbor, NY 11724, USA Tel: 516 367 8884 Fax: 516 367 8874 Email: mccombie@cshl.org
                                                                                                                                                                                                                                                                                                        AW784595 405 bp mRNA linear EST 19-MAY-2000 25653h10.gl Canis cDNAs from mdck cells Canis familiaris cDNA clone zb63h10.5′, mRNA sequence.

AW784595
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Seq primer: -40M13RevUniv
                                                                                                                                                                      Contact: W. Richard McCombie
                                                                                                                                                                             Expressed sequence tags from Canis Unpublished (2000)
                                                                                                                                                                                                                                                           Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
                                                                                                                                                                                                                                                                                                AW784595.1 GI:7838908
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/db_xref="taxon:9615"
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BG710692
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BF984155
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mRNA sequence.
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                             BE297480 699 bp m 601176041F1 NIH_MGC_17 Homo sapiens
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BP 191 91006 EVRY cedex - France
Email: seqref@genoscope.cns.fr, Web : www
Location/Qualifiers
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Contact: Genoscope
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                                                                                                                                                                                                                                                                                           /note-*Organ: brain; Vector: pCMVSPORT 6; 1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-stranded cDNA was digested with Not I and cloned into the Not I and Eco RV sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies. Contact: Feng Liang Life Technologies. Contact: Feng Liang Life Technologies, a division of Invitrogen 9800 Medical Center Drive Rockville, Maryland 20850, USA Fax: (1) 301 610 8371 Email: fliang@lifetech.com URL: http://fulllength.invitrogen.com*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cells. Please contact Greg Hannon (hannon@cshl.org) with
any library related inquiries."
a 138 c 132 g 68 t 2 others
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/db_xref="taxon:9606"
/clone="CSODD005YH10"
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/lab_host="DH108"
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96.7%;
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Best Local Similarity 96.6
Matches 28; Conservative
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                                                 Hillier,L., Allen,M., Bowles,L., Dubuque,T., Geisel,G., Jost,S., Kucaba,T., Lacy,M., Le,N., Lennon,G., Marra,M., Martin,J., Moore,B., Schellenberg,K., Steptoe,M., Tan,F., Theising,B., White,Y., Wylie,T., Waterston,R. and Wilson,R.
WashU-Merck EST Project 1997
Unpublished (1997)
Contact: Wilson RK
                                                                                                                                                                                                                                                                                                                                                                                                                                zw31a04.rl Soares ovary tumor NDHOT Homo sapiens cDNA clone IMAGE:770862 5' similar to TR:G1216398 G1216398 VEGF RELATEI ISOFORM VRF167 PRECURSOR. ;, mRNA sequence.
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Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at: image.llnl.gov
plate: LLCM205 row: b column: 12
High quality sequence start: 35
High quality sequence stop: 657.
Location/Qualifiers
1. 699
Washington University School of Medicine 4444 Forest Park Parkway, Box 8501, St. J
                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Tissue Procurement: ATCC
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Contact: Robert Strausberg, Ph.D.
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1 (bases 1 to 699)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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/lab_host="DBHOB (phage_resistant)"
/lab_host="DBHOB (phage_resistant)"
/note="organ: muscle; vector: pOTB7; Site_1: EcoRI;
/note="organ: muscle; vector: pOTB7; Site_1: EcoRI;
/note="organ: muscle; vector: pOTB7; Site_1: using the Directionally cloned into EcoRI/XhoI sites using the Directionally cloned into EcoRI/XhoI sites using the following 5 adaptor: GGACGAG(G), Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies)."
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/clone="IMAGE:3531179"
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                                                                                                 Email: cgapbs-r@mail.nih.gov.
Tissue Procurement: Jeffrey E.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM9772 row: d column: 15
High quality sequence stop: 711.
Location/Qualifiers
1 Consortium/CLNL at:
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BF582738
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This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Seq_primer: -28ml3 rev2 ET from Amersham
                                                                                                                                                                                                                                                                                                 Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                   NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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(bases 1 to 799)
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/db_xref="GDB:5980735"
/db_xref="taxon:9606"
/clone="IMAGE:770862"
                               /strain="FVB/N"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (Pharmacia). Library constructed by Bento Soares and
W Fatima Ronaldo "
/clone="IMAGE:4208222"
/clone_lib="NCI_CGAP_Co24"
                                                                   /organism="Mus musculus"
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129
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                    ctgggcagcaccaagtccggatgcagatcc 30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               http://image.llnl.gov
plate: LLCM1914 row: m column: 16
High quality sequence stop: 669.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Mark Watson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 919)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cDNA Library Preparation: Ling Hong/Rubin Laboratory cDNA Library Arrayed by: The I.M.A.G.E. Consortium ()
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                                                                                                                                                                                       /clone_lib="NIH_MGC_113"
//lab_host="ph108 (phage resistant)"
/lab_host="ph108 (phage resistant)"
/note="organ: spleen; Vector: ppTB7; Site_1: XhoI; Site_2: RecRI; cDNA made by oligo-dT priming. Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies). Note: this is a NIH_MGC Library."
a 230 c 328 g 182 t
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/note="Organ: colon; Vector: pCMV-SPORT6; Site_1: Not1;
Site_2: Salı; Cloned unidirectionally. Primer: Oligo dT.
Sverage insert size 1.6 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."

241 c 203 g 145 t
                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:5441079"
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                                                                                               89.3%;
93.3%;
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93.3%;
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          mRNA sequence.
BI823209
BI823209.1 GI:
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Fax: 314 286 1810
Email: actain
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445 bp mRNA linear L51 vo row L77, Tt29f01.rl Soares ovary tumor NbHOT Homo sapiens CDNA clone IMAGE:723769 5' similar to TR:G1216396 G1216396 VEGF RELATED FACTOR ISOFORM VRF186 PRECURSOR. ;, mRNA sequence.
                                                       BI823209
603039472F1 NIH_MGC_115
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M.Fatima Bonaldo. "
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/db_xref="taxon:9606"
/clone="IMAGE:723769"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /clone_lib="Soares ovary tumor NbHOT"
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             GI:15934759
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b; Pred. No. 7.7
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                       ,P., Endo,T., Fukuda,S., Fukunishi,Y., Hara,A., Hayatsu,N.,
Hirozane,T., Hori,F., Ishi,Y., Ishikawa,J., Ishikawa,T., Itoh,M.,
Izawa,M., Kadota,K., Kagawa,I., Kai,C., Kawai,J., Kikuchi,N.,
Izawa,M., Kojima,Y., Kondo,S., Koya,S., Kurihara,C., Kusakabe,M.,
Matsuyama,T., Miki,R., Mizuno,Y., Nakamura,M., Oda,H., Okazaki,Y.,
Ono,T., Owa,C., Saito,H., Sakai,C., Sato,K., Shibata,K., Shibata,
Y., Shigemoto,Y., Shinaqawa,A., Shiraki,T., Sogabe,Y., Sughara,Y.,
T., Shigemoto,Y., Shinaqawa,A., Shiraki,T., Sogabe,Y., Sughara,Y.
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Tissue Procurement: Life Technologies, Inc.
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National Institutes of Health, Mammalian
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                                                                                                                                                                                                                                                                                                                                                                             Mammalia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             house mouse
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1 (bases 1 to 685)
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Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDNA Library Preparation: Life Technologies, Inc. cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can be
Suzuki, H., Suzuki, H.,
                                                                                                                                                                                                                                                                                                                                          (bases 1 to 266)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="Organ: pooled brain, lung, testis; Vector: pcMV-SpORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNJ source anonymous pool of 6 male brains, age range 23-27; male lung, age 27; and 1 male testis, age 69. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.8 kb, insert size range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by (cribary instructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (insert size full-length clones and was constructed by Carlots (i
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/clone="IMAGE:5180416"
/clone_lib="NIH_MGC_115"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                Aizawa, K., Akahira, S., Akiyama, J., Arakawa, T.,
                                                                                                                                                                                                                                                                                                                                                                         Eutheria;
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Pred. No.
Tagawa, A.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 10;
8.2;
Takahashi, F.,
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RESULT 10
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Best Local
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                                                                                                                            1 ctgggcagcaccaagtccggatgcagatcc 30
                                                                                                    CTGCGCAACACCAATTCCGAATGCAGATCC 192
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URL:http://genome.gsc.riken.go.jp/
Carninci.p., Nishlyama.y., Westover.A., Itoh,M., Nagaoka,S., Sasaki
,N., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Thermostabilization and thermoactivation of thermolabile enzymes by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RIKEN Mouse ESTs (Konno, H., et al.)
Unpublished (2000)
Contact: Yoshihide Hayashizaki
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Carninci,P. and Hayashizaki,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      T., Tsunoda,Y., Watahiki,A., Watanabe,S., Yamamura,T., Yamanaka,I., Yano,R., Yasunishi,A., Yokota,T., Yoshida,K., Yoshiki,A., Yoshino,M., Muramatsu,M. and Hayashizaki,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            trehalose and its application for the synthesis of full lecDNA. Proc. Natl. Acad. Sci. U.S.A. 95 (2), 520-524 (1998) Itoh, M., Kitsunai, T., Akiyama, J., Shibata, K., Izawa, M., K
  AZ341037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tomaru,Y., Carninci,P., Shibata,Y., Ozawa,Y., Muramatsu,M., Okazaki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             further details
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                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Please visit our web site (http://genome.rtc.riken.go.jp) for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         High-efficiency full-length cDNA cloning. Methods Enzymol. 303,
                                                                                                                                                                                      Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     prepared by using trehalose thermo-activated reverse transcriptase and subsequently enriched for full-length by
                                                                                                                                                                                                                                                                                                                                                  modified pBluescript KS(+) after bulk excision from Lambda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /tissue_type="head"
/dev_stage="16 days embryo"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Mus musculus"
/strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="C130075I12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="Site_1: Sall; Site_2: BamHI; cDNA library was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /sex="mixed"
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                                                                                                                                                                                                       78.7%;
86.7%;
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Pred. No. 55;
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  DNA
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VERSION
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Local
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Islam,H., Longacre,S., Mahmoud,M., Meenen,E., Pedersen,T., Reli
,M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            High quality sequence stop: 555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Erro
Plate: 0073 row: B column: 1:
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Fax: 801 585 7177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Robert B. Weiss
University of Utah Genome Center
University of Utah
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AZ341037.1 GI:10416888
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                Similarity
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                                                                                          Conservative
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                                                                                                                                                                                                                              adaptored vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."

173 c 138 g 112 t
                                                                                                                                                                                                                                                                                                                  adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pWD42 (g114732114)gblaff29072.1), a copy-number inducible derivative of plasmid RI. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /lab_host="E. Coli strain XL10-Gold, T1-resistant, F-" /note="Vector: PWD42nv; Purified genomic DNA from M. musculus C57BL/6J (male) was obtained from the Jackson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Mus musculus"
/strain="C57BL/6J"
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                                                                                                              78.7%;
86.7%;
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                                                                                                              Score 23.6;
Pred. No. 6
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olumn: 15
                                                                                             Mismatches
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Mammalia; E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unpublished (1996)
Contact: Marra M/Mouse EST Project
WashU-HHMI Mouse EST Project
                                                                                                             EST
                                                                                                                                                               mRNA sequence.
BI087310
                                                                                                                                                                                                            BI087310 579
602850965F1 NIH_MGC_10 Homo
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This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
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4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
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Eukaryota; Metazoa;
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                                                                                                                                      BI087310.1
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h quality sequence stop: 411.
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314 286 1810
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/note="organ: heart; Vector; pBluescript SK-; Site_1:
/note="organ: heart; Vector; pBluescript SK-; Site_1:
/note="organ: heart; Vector; pBluescript SK-; Site_1:
/note="organ: heart; Vector; Primer.
/note="organ: heart; Vector; Primer.
/note="organ: heart; Vector; Primer.
/note="organ: heart; Vector; Primer.
/note="organ: heart; Vector; Primer.
/note="organ: heart; Vector; Primer.
/note="organ: heart; Vector; Primer.
/note="organ: heart; Vector; Primer.
/note="organ: heart; Vector; Vector; Primer.
/note="organ: heart; Vector; Vector; Primer.
/note="organ: heart; Vector; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /strain="NIH/Swiss"
/db_xref="caxon:10090"
/clone="IMAGE:535122"
/clone_lib="Stratagene mouse heart (#937316)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /tissue_type="heart"
/dev_stage="13 day embryos"
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88.9%;
Chordata;
Primates;
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Rodentia;
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Pred. No. 1.9e+02;
0; Mismatches 3
                                                                                                                                                                                                                                             579 bp
                                                                                                                                                                                                              bp mRNA linear EST 20-JUN-2001 sapiens cDNA clone IMAGE:4992305 5',
Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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WashU-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Louis,
Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                             Unpublished (1996)
Contact: Marra M/Mouse EST Project
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-remail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                    Marra,M., Hillier,L., Allen,M., Bowles,M., Districh,N., Dubuque,T., Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               uc07b07.r1 Soares_mammary_gland_NbMMG Mus musculus cDNA c. IMAGE:1397269 5' similar to SW:VEGB_MOUSE P49766 VASCULAR ENDOTHELIAL GROWTH FACTOR B PRECURSOR; mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
21; Conserv
Seq primer: -28m13 rev2 ET from Amersham High quality sequence stop: 378.
                                                               This clone is available royalty-free tlimAGE Consortium (info@image.llnl.gov)
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Mammalia; Eutheria;
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                                               MGI:908985
                                                                                                              Email: mouseest@watson.wustl.edu
                                                                                                                                                                                                                                                                                            The WashU-HHMI Mouse EST Project
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            louse mouse.
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1 to 389)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /db_xref="taxon:9606"
/clone="IMAGE:4992305"
/clone_lib="NIH_MGC_10"
/cell_line="MGC36"
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100.0%; Pr
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Rodentia;
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Pred. No.
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5.4e+02;
thes 0;
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v) for further information.
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National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
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CDNA Library Arrayed by: Incyte Genomics, Inc.
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                              Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="Organ: mammary gland; Vector: pT7T3D-Pac (Pharmacia ) with a modified polylinker; Site_1: Not I; Site_2: Eco RI; 1st strand cDNA was primed with a Not I - oligo(dT) primer [5'
                                                                      /organism-"Homo sapiens"
/db_xref-"taxon:9606"
/clone="IMAGE:345642"
/clone_lib-"NIH_MGC_12"
/tissue_type-"cervical carcinoma cell line"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       constructed and normalized by Bento Soares and M.Fatima
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                                                         /lab_host="DH10B"
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/dev_stage="4 weeks"
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/clone="IMAGE:1397269"
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/strain="C57BL/6J"
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91.78;
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RESULT 16
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                          23; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               http://image.llnl.gov
Plate: LLCM1157 row: f column: 11
High quality sequence stop: 701.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
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                                                                                                                                                                                                                                                          /Clone_lib="NIH_MGC_43"
/tlosue_type="normal pigmented retinal epithelium"
/tissue_type="normal pigmented retinal epithelium"
/lab_host="DH10B (phage-resistant)"
/note="Norgan: eye; Vector: poTB7; Site_1: XhoI; Site_2:
ECORI; cDNA made by oligo-dT priming. Directionally
cloned into ECORI/XhoI sites using the following 5'
adaptor: GCCACGAG(G). Library constructed by Ling Hong
in the laboratory of Gerald M. Rubin (University of
California, Berkeley) using ZAP-cDNA synthesis kit
(Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH_MGC Library. | "
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1 209 c 1
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Pred. No. 7.
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RESULT 17
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TITLE
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                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostor Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 793)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC) Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                    BE547100.1
                                                                                                                                                                                                                                                                                                                                         mRNA sequence.
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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                                                                                                                                                                                                                                                           human
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Tissue Procurement: ATCC
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cDNA Library Preparation: Life Technologies, cDNA Library Arrayed by: Incyte Genomics, In
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/tissue_type="retinoblastoma"
/lab_host="DH10B (phage-resistant)"
/lab_host="DH10B (phage-resistant)"
/note="Organ: eye; Vector: pOTB7; Site_1: XhoI; Site_2: EcoRI; cDNA made by oligo-dT priming. Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Library constructed by Ling in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH_MGC Library."
a 273 c 242 g 143 t
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/db_xref="taxon:9606"
/clone="IMAGE:3352484"
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Pred. No. 7.9e
0; Mismatches
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s cDNA clone
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                                                                                                                                                                                                                                                                                                                            Email: cgapbs r@mail.nih.gov
Tissue Procurement: David N. Louis, M.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                     Plate: LLAM9421 row: h column: High quality sequence stop: 766.
Location/Qualifiers
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BF345759
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Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM8450 row: m column: 01
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/lab_host="DH10B (T1 phage-resistant)"
/note="Organ: brain; Vector: pCMV-SPORT6; Site_1: NotI;
Site_2: SalI; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 2.3 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
a 266 c 265 g 150 t
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173 c 239 g 142 t
                                                                                                                                                             /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:4153397"
/clone_lib="NCI_CGAP_Brn67"
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                                                                                                                                            tissue_type="anaplastic oligodendroglioma with 1p/19q/
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/lab_host="DH10B"
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/db_xref="taxon:9606"
/clone="IMAGE:3458856"
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Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
plate: LLAM10099 row: f column: 15
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                                                                     AZ026632
RPCI-23-345P3.TJ RPCI-23
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Tissue Procurement: ATCC
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National Institutes of Health, M
Unpublished (1999)
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Mammalia; Eutheria;
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                            AZ026632.1 GI:7102016
                                                         DNA sequence.
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 house mouse
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                                                                                                                                                                                                                                                                                                     /tissue_type="duodenal adenocarcinoma, cell line"
/lab_host="DH10B (phage-resistant)"
/note="Organ: small intestine; Vector: pCMV-SPORT6;
Site_1: NotI; Site_2: SalI; Cloned unidirectionally;
oligo-dT primed. Average insert size 1.767 kb. Library
enriched for full-length clones and constructed by Life
Technologies. Note: this is a NIH_MGC Library."
a 358 c 318 g 190 t
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/clone="IMAGE:4397966"
/clone_lib="NIH_MGC_88"
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85.2%;
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Primates;
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Eukaryota; Metazoa; Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Department of Eukaryotic Genomics
The Institute for Genomic Research
9712 Medical Center Dr., Rockville, MD
Tel: 301 838 0200
Fax: 301 838 0208
                                                                                                                                                                                                                                                                  mRNA sequence.
BM008260
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603616890F1 NIH_MGC_113
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Mouse BAC End Sequences from Library RPCI-23
Unpublished (1999)
Other_GSSs: RPCI-23-345P3.TV
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,B., Levins,M., Mcgann,S., Tsegaye,G., Geer,K., Krol,M.,
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 851)
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                                             Unpublished (1999)
                                                                  NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, N
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="Organ: Kidney/Brain; Vector: pBACe3.6; Site_1: EcoRI; Site_2: EcoRI; Female C57BL/6J mouse kidney and/or brain genomic DNA was isolated and partially digested with a combination of EcoRI and EcoRI Methylase. Size selected DNA was cloned into the pBACe3.6 vector at the EcoRI sites. The ligation products were transformed into DH10B electrocompetent cells (BRL Life Technologies).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /db_xref="taxon:10090"
/clone="RPCI-23-345P3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Mus musculus"
/strain="C57BL/6J"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /sex="Female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone_lib="RPCI-23"
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                                                                                                                                                                                                                                              GI:16522614
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Homo
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                                                                      Mammalian
                                                                                                                                                                                                                                                                                                              mRNA linear EST 30-OCT-20 ns cDNA clone IMAGE:5440486 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Nematoda; Chromadorea; Tylenchida; Tylenchina; Tylenchidea; Heteroderidae; Meloidogyninae; Meloidogyne.

1 (bases 1 to 336)

MCCarter,J., Clifton,S., Chiapelli,B., Pape,D., Martin,J., Wylie,T., Dante,M., Marra,M., Hillier,L., Kucaba,T., Theising,B., Bowers,Y., Dante,M., Ritter,E., Bennett,J., Franklin,C., Tsagareishvili,R., Gibbons,M., Ritter,E., Bennett,J., Franklin,C., Tsagareishvili,R., Ronko,I., Kennedy,S., Maguire,L., Beck,C., Underwood,K., Steptoe,M., Allen,M., Person,B., Swaller,T., Harvey,N., Schurk,R., Kohn,S., Shin,T., Jackson,Y., Cardenas,M., McCann,R., Waterston,R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The Washington Univ. Nematode EST Project, 1999 Washington University School of Medicine 4444 Forest Park Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, St. Louis, Parkway, Box 8501, S
                                                                                                                                                                                                                                                                                                                                                                  Tel: 314 286 1800
Fax: 314 286 1810
Email: est@watson.wustl.edu
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AW829906
                                                                                                                                                                                 Sequencing by: Washington University Genome Sequencing
                                                                                                                                                                                                                                         The library was constructed by Uma Rao and David Bird (david_bird@ncsu.edu) at North Carolina State University. DNA
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//db xref="taxon:9606"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cDNA Library Preparation: M. Bento Soares, Ph.D. cDNA Library Arrayed by: Greg Lennon, Ph.D. DNA Sequencing by: Washington University Genome Sequencing Center Clone distribution: NCI-GGAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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n194d03.s1 NCI_CGAP_Col0 Homo
                                                                                                                                                                                                                                                                                                                                                                             High quality sequence stop:
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anat
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23; Conser
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                                    into the Not I and Eco RI sites of the modified pT7T3 vector. Library is normalized. Library was constructed by Bento Soares and M. Fatima Bonaldo (N-Soares4). "
                                                                                                            modified polylinker; 1st strand cDNA was prepared from RER+ colon tumor, and was then primed with a Not I oligo(dT) primer. Double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="Vector: ZAP express - pBKCMV (Stratagene); Site_1: ECORI; Site_2: xhoI; Oligo (dT) primed library. cDNA was contructed and cloned unidirectionally into the vector within the 5' ECORI and 3' XhoI sites. This library was constructed by Dr. Uma Rao and Dr. David Bird at North Carolina state University."

a 50 c 60 g 112 t
                                                                                                                                                                                                                         /clone="IMAGE:1058309"
/clone_lib="NCI_CGAP_CO10"
/tlssue_type="colon tumor RER+"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                          /organism="Homo sapiens"
/db_xref="taxon:9606"
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/dev_stage="enriched for 2nd stage juveniles"
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/db_xref="taxon:6306"
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Pred. No. 1.2e+03;
                                                                                                                                                                                                  colon; Vector: pT7T3D-Pac (Pharmacia) with
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     l Similarity
23; Conserv
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Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The library was constructed by Dr. Andrew Kloek (kloek@biology.wustl.edu) at Divergence LLC, and Brandi Chiapelli (bchiapel@watson.wustl.edu) and Dr. Jim McCarter (jmccarte@watson.wustl.edu) at Washington University Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The Washington Univ. Nematode EST Project, 1999
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The Washington Univ. Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mccarter,J., Clilton,S., Chiapelli,B., Pape,D., Martin,J., Wylle,T.
    Dante,M., Marra,M., Hillier,L., Kucaba,T., Theising,B., Bowers,Y.
    Gibbons,M., Ritter,E., Bennett,J., Franklin,C., Tsagareishvili,R., Ronko,I., Kennedy,S., Maguire,L., Beck,C., Underwood,K., Steptoe,M., Allen,M., Person,B., Swaller,T., Harvey,N., Schurk,R., Kohn,S., Shin,T., Jackson,Y., Cardenas,M., McCann,R., Waterston,R. and Wilson,R.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        est@watson.wustl.edu
                                                                                                                                                                        /note-"Vector: pCRII-TOPO; SL1-Oligo(dT) PCR-based library. Meloidogyne javanica cDNA PCR products of size approximately 600-1200 nucleotides containing SL1 on the 5' end and oligo(dT) on the 3' end were non-directionally cloned into pCRII-TOPO (Invitrogen) following the Topo TA cloning protocol. cDNA products were size separated. The cDNA insert can be excised by digestion with EcoRI. The Library was constructed by Dr. Andrew Kloek at Divergence LLC and Brandi Chiapelli and Dr. James McCarter at Washington University, St. Louis. Nematodes were provided by Dr. David Bird of North Carolina State University."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone_lib="Meloidogyne javanica Egg
Chiapelli McCarter"
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/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Meloidogyne javanica"
/db_xref="taxon:6303"
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Score 20; DB 10;
Pred. No. 1.2e+03;
0; Mismatches 5
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McCarter,J., Clifton,S., Chiapelli,B., Pape,D., Martin,J., Wylie,T., Dante,M., Marra,M., Hillier,L., Kucaba,T., Theising,B., Bowers,Y., Gibbons,M., Ritter,E., Bennett,J., Franklin,C., Tsagareishvili,R., Ronko,I., Kennedy,S., Maguire,L., Beck,C., Underwood,K., Steptoe,M., Allen,M., Person,B., Swaller,T., Harvey,N., Schurk,R., Kohn,S.
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The library was constructed by Uma Rao and David Bird
(david_bird@ncsu.edu) at North Carolina State University.
Sequencing by: Washington University Genome Sequencing Ce
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Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108, USA
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Fax: 314 286 1810
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Tylenchoidea; Heteroderidae; Meloidogyninae; Meloidogyne.
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                                                                                                                                                                                                                                                           Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Shin,T., Jackson,Y., Cardenas,M., McCann,R., Waterston,R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    primer: -40RP from Gibco.
Location/Qualifiers
                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                               /clone_lib="Bird-Rao Meloidogyne incognita J2"
/dev_stage="enriched for 2nd stage juveniles"
/lab_host="XLORL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Meloidogyne incognita"
/db_xref="taxon:6306"
                                                                                                                                                                                                                                                           66.7%;
82.1%;
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Pred. No. 1.2e+03;
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                                     mRNA linear EST 30-JUN-2000 immune competent 4A3B Anopheles
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National current National current National current National current National current National Contact: Robert Strausberg, Ph.D. Contact: Robert Strausberg, Ph.D. Email: cgapbs-rémail.nih.gov
Tissue Procurement: Martha Rebbert, Steven L. Klein, Ph.D. CDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) CDNA Library Arrayed by: Washington University Genome Sequencing Center
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dc91907.y1 NICHD XGC C
similar to TR:Q9V812 C
BG364270
BG364270.1 GI:1325336
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NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy
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23; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mosquito innate immunity genes from expressed sequence tags generated from immune-competent cell lines Proc. Natl. Acad. Sci. U.S.A. 97 (12), 6619-6624 (2000)
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Donohue,M., Schultz,J., Benes,V., Bork,P., Ansorge,W., Soares,M.B.
and Kafatos,F.C.
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African malaria
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Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea;
                                                                                                                                                                                                                                                                                                                                                                                     Xenopus laevis
                                                                                                                                                                                                                                                                                                                                                                                                             African clawed frog
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Fotis C. Kafatos laboratory
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/lab_host="E. coli DH10B"
/note="Vector: pT73D-Pac (Pharmacia) with a modified
/note="Vector: pT73D-Pac (Pharmacia) with a modified
polylinker; Site_1: EcoRI; Site_2: NotI; sequenced from
the forward priming site that reads from the 3' end of
cDNA. The 4A3B is a directionally cloned and normalized
cDNA library that was constructed from the 4A3B cell line
oligo-T primed cDNA according to: Bonaldo, Lennon & Soares
(1996): Normalization and Subtraction: Two Approaches To
Facilitate Gene Discovery, Genome Research 6, 791-806."
a 155 c 157 g 93 t
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/strain="4A r/r"
/db_xref="taxon:7165"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /clone_lib="Anopheles gambiae immune
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TGAGCAGCCCCATGTACGGATCCAGATC 233
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished (2001)
Contact: Tadasu Shin-i
Center For Genetic Resource Information
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1111 Yata, Mishima, Shizuoka 4
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                                                                                                                                      Similarity
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                                                                                                                                                                                                                                                                                173
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Location/Qualifiers
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/db_xref="taxon:8355"
/clone="IMAGE:3404724"
/clone="IMAGE:3404724"
/clone_lib="NICHD XGC OO1"
/tissue_type="oocytes"
/lab_host="DHIOB (phage resistant)"
/lab_host="DHIOB (phage resistant)"
/note="Vector: pCMV-SPORT6; Site_1: Not1; Site_2: Sal:
/note="Vector: pCMV-SPORT6; Site_1: Not1; Site_2: Sal:
/note="Vector: DCMV-SPORT6; Site_1: Not1; Site_2: Sal:
/note="Vector:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tshini@genes.nig.ac.jp.
Location/Qualifiers
                                                                                                                                                                                                                                                                                /dev_stage="stage 10.5"
118 c 128 g 1:
                                                                                                                                                                                                                                                                                                                                                                                          /organism="Xenopus laevis"
/db_xref="taxon:8355"
/clone="xL153k16"
/clone_lib="NIBB Mochii normalized Xenopus
                                                                                                                                                                                                                                                                                                                                     tissue_type="whole embryo"
                                                                                                                                                                                                                                                                                                                                                                  library"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Terasaka, C., Mochii, M.,
                                                                                                                                      66.7%;
82.1%;
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82.1%;
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Pred. No. 1.3e
0; Mismatches
                                                                                                                                      Score
Pred.
                                                                                                            Mismatches
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                                                                                                                                      NO.
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                                                                                                                                      DB 10;
1.3e+03;
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1.3e+03;
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                                                                                                            5
                                                                                                                                                                 Length
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                                                                                                            Indels
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                                                                                                                                                                                                                                                                                                                                                                                                early gastrula
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EST
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SOURCE
ORGANISM
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ORGANISM
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AW828856/c
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ORIGIN
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BJ038957/c
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                                      KEYWORDS
                                                        VERSION
                                                                              ACCESSION
                                                                                                                  DEFINITION
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Best Local
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                                                                                                                                                                                                                                  214
                                                                                                                                                                                                                                                                                                                            Local
                                                                                                                                                                                                                              1 (bases 1 to 536)

McCarter, J., Clifton, S., Chiapelli, B., Pape, D., Martin, J., Wylie, T., McCarter, M., Marra, M., Hillier, L., Kucaba, T., Theising, B., Bowers, Y., Gibbons, M., Ritter, E., Bennett, J., Franklin, C., Tsagareishvill, R., Gonko, I., Kennedy, S., Maguire, L., Beck, C., Underwood, K., Steptoe, N., Allen, M., Person, B., Swaller, T., Harvey, N., Schurk, R., Kohn, S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AW828856 536 bp mRNA linear EST 10-MAY-200: ra69a03.yl Bird-Rao Meloidogyne incognita J2 Meloidogyne incognita CDNA 5' similar to WP:C36E6.B CE20542 ;, mRNA sequence.

AW828856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The library was constructed by Uma Rao and David Bird (david_birdencsu.edu) at North Carolina State University. Sequencing by: Washington University Genome Sequencing Cer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: McCarter JP
The Washington Univ. Nematode EST Project, 1999
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108,
Xenopus laevis
                                                      BJ038957
BJ038957.1 GI:17408453
                                                                                                                BJ038957
BJ038957 NIBB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The Washington Univ. Nematode EST Project,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Meloidogyne
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                  African clawed frog.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: est@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tylenchoidea; Heteroderidae; Meloidogyninae; Meloidogyne.
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                                                                                              laevis cDNA
                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Shin, T., Jackson, Y., Cardenas, M., McCann, R., Waterston, R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                primer: -40RP from Gibco
                                                                                                                                                                                                                                                                                                                                                                                                                            211
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Location/Qualifiers
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314 286 1810
                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                        /note-"Vector: ZAP express - pBKCMV (Stratagene); Site_1: ECORI; Site_2: xhoI; Oligo (GT) primed library. cDNA was contructed and cloned unidirectionally into the vector within the 5' ECORI and 3' XhoI sites. This library was constructed by Dr. Uma Rao and Dr. David Bird at North Carolina state University."

Carolina state University."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone_lib="Bird-Rao Meloidogyne incognita J2"
/dev_stage="enriched for 2nd stage juveniles"
/lab_host="XLORL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Meloidogyne incognita"
/db_xref="taxon:6306"
                                                                                      547 bp mRNA linear EST 07-DEC-
BB Mochii normalized Xenopus neurula library Xenopus
clone XL045p19 5', mRNA sequence.
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Pred. No.
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Center St.
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AUTHORS
TITLE
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BG710692
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AUTHORS
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ORIGIN
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JOURNAL
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Best Local :
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260 TGAGCAGCCCCATGTACGGATCCAGATC 233
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequence.
BG710692
BG710692.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gallus gallus
Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BG710692 563 bp mRNA linear EST 08-MAY-200 pglln.pk004.k8 Normalized Liver Library Gallus gallus cDNA clone pglln.pk004.k8 5' similar to pir|S15904|S15904 alpha-1 proteinase inhibitor III, variant 1 precursor - rat emb|CAA37176.1| (X52984)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1111 Yata, Mishima, Shizuoka 411-8540, Japan
Tel: 81-559-81-6856
Fax: 81-559-81-6855
                                                                                                                                                                                                                                                                                                                                                   Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Archosauria; Aves; Neognathae; Galliformes; Phasian: Phasianinae; Gallus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        alpha(10-inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: tshini@genes.nig.ac.jp.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Center For Genetic Resource Information
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kitayama, A., Terasaka, C., Mochii, M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                 Email: joan@UDel.Edu, www.chickest.udel.edu.
                                                                                                                                                                                                                     University of Delaware
40 Townsend Hall, Newark,
Tel: 302 831-1345
Fax: 302-831-3411
                                                                                                                                                                                                                                                                                                          Molecular Endocrinology
                                                                                                                                                                                                                                                                                                                                   Contact: Joan Burnside
                                                                                                                                                                                                                                                                                                                                                                            Burnside, J., Morgan, R.W. and Cogburn, L.A. Chicken ESTs from a normalized liver library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                chicken.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     National Institute of Genetics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Tadasu Shin-i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Expressed genes in X. laevis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Xenopodinae; Xenopus.
1 (bases 1 to 547)
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/clone="pglin.pk004.k8"

/clone_lib="Normalized Liver Library"

/sex="Male and Female"

/tissue_type="liver"

/lab_host="E.coli EMDH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /tissue_type="whole embryo"
/dev_stage="stage 15"
118 c 132 g 115 t
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/db_xref="taxon:8355"
/clone="XL045p19"
                                                                                                          /db_xref="taxon:9031"
                                                                                                                                                                          Location/Qualifiers
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                                                                                                                                 ∕organism="Gallus gallus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GI:14004642
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82.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      precursor [Rattus norvegicus]G, mRNA
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Pred. No. 1.3e+03;
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Euteleostomi;
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BASE COUNT
ORIGIN
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AUTHORS
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ORGANISM
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BJ035192/c
LOCUS
                                                                    ACCESSION
VERSION
                                                                                                                                      RESULT 33
BJ094267/c
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KEYWORDS
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ORIGIN
                                                       KEYWORDS
                                                                                                              DEFINITION
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Best Local S
Matches 23
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Best Local
                              ORGANISM
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                                                                                                                                                                                              TGAGCAGCCCCATGTACGGATCCAGATC
           EST.

African clawed frog.

Xenopus laevis
Eukaryota; Metazoa; Cl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     572 bp BJ035192 NIBB Mochii normalized laevis cDNA clone XL021e08 5', m BJ035192
                                                                 Xenopus laevis cDNA clone
BJ094267
BJ094267.1 GI:17594218
                                                                                          BJ094267 S79 bp mRNA linear EST 12-DEC BJ094267 NIBB Mochii normalized Xenopus early gastrula library Xenopus laevis cDNA clone XL144p09 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Center For Genetic Resource Information National Institute of Genetics 1111 Yata, Mishima, Shizuoka 411-8540, Tel: 81-559-81-6856 Fax: 81-559-81-6855
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23; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished (2001)
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 Amphibia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Tadasu Shin-i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kitayama, A., Terasaka, C., Mochii, M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Xenopodinae; Xenopus.
1 (bases 1 to 572)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Xenopus laevis
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                                                                                                                                                                                                                                                Similarity 82...
23; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Expressed genes in X. laevis
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Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Xenopus laevis"
/db_xref="taxon:8355"
/clone="XL021e08"
 Batrachia;
                                                                                                                                                                                                                                                                                                                              /dev_stage="stage 15"
121 c 146 g
                                                                                                                                                                                                                                                                                                                                                                           Library
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                                                                                                                                                                                                                                                                                                                                                           tissue_type="whole_embryo"
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82.1%;
                                                                                                                                                                                                                                                              66.7%;
Chordata; Craniata; Ver; Anura; Mesobatrachia;
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                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                 Score 20; DB Pred. No. 1.3e 0; Mismatches
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cches 5;
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Xenopus neurula library
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1.3e+03;
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د.
Vertebrata; I
ia; Pipoidea;
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Euteleostomi;
; Pipidae;
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ORIGIN
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KEYWORDS
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AV871222/c
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Query Match
Best Local S
Matches 23
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Best Local
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  l Similarity 82.2
23; Conservative
                                                                                                                                                                                                                              Kyoto University
Sakyo-ku, Kyoto, Kyoto 606-8502,
Tel: 81-75-753-4081
Fax: 81-75-705-1113
                                                                                                                                                                                                                                                                                    Unpublished (2000)
Contact: Nori Satch
Department of Zoology
                                                                                                                                                                                                                                                                                                                                                                        Ciona intestinalis
Eukaryota; Metazoa; Chordata; Urochordata; Ascidiacea;
Phlebobranchia; Cionidae; Ciona.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AV871222 Nori Satoh unpublished cDNA library, egg Cic intestinalis cDNA clone rcieg26f08 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            intestinalis cDNA clone
AV871222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Center For Genetic Resource Information National Institute of Genetics 1111 Yata, Mishima, Shizuoka 411-8540, Tel: 81-559-81-6856
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1 (bases 1 to 579)
Kitayama, A., Terasaka, C.,
                                                                                                                                                                                                                                                                                                                             Satoh, N., Satou, Y., Kohara, Y. and Shir Expressed genes in Ciona intestinalis
                                                                                                                                                                                                                                                                                                                                                                                                                    Ciona intestinalis.
                                                                                                                                                                                                                                                                                                                                                                                                                                               AV871222.1
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Contact: Tadasu Shin-i
                                                                                                                                                                                                                Email: satoh@ascidian.zool.kyoto-u.ac.jp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Expressed genes in X. laevis embryo
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                                                                                                                                                                                                                                                                                                                                                          (bases 1 to 653)
                                                                                       153
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Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                              /clone="rcieg26f08"
/clone_lib="Nori Satoh unpublished
/tissue_type="whole animal"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Xenopus laevis"
/db_xref="taxon:8355"
/clone="XL144p09"
                                                                                     /dev_stage="egg"
140 c 146
                                                                                                                                                        /organism="Ciona intestinalis"
/db_xref="taxon:7719"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /tissue_type="whole embryo"
/dev_stage="stage 10.5"
121 c 145 g 120 t
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              66.7%;
82.1%;
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82.1%;
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Pred. No. 1.3e
0; Mismatches
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  Score 20; DB Pred. No. 1.360; Mismatches
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                                                                                                                                                                                                                                                                                                                                               and Shin-i,T
                DB 9;
. 1.3e+03
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1.3e+03;
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                             Length 653;
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cy, egg Ciona
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Gaps

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AW642247/c
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1 (bases 1 to 658)
Blackshear, P.J., Lai, W.S., Thorn, J.M., Kennington, E.A., Staffa, N.G.
Jr., Moore, D.T., Bouffard, G.G., Beckstrom-Sternberg, S.M., Touchman
J.W., Bonaldo, M.F. and Soares, M.B.
The NIEHS Xenopus maternal EST project: interim analysis of the
first 13,879 ESTs from unfertilized eggs
Gene 267 (1), 71-87 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fax: 919 541-4571
Email: black009@niehs.nih.gov
Clone is available through Research Genetics, Inc., 2130 Memori
Parkway, Huntsville, AL 35901
phone 800-533-4363 ext.cdna, fax 256-536-9016 att:cdna, email
cdna@resgen.com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Perry J. Blackshear
Office of Clinical Research and Laboratory of Signal Transduction
National Institute of Environmental Health Sciences
A2-05 NIEHS, 101 Alexander Drive, Research Triangle Park, NC 27709
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658 bp mRNA linear cml7e04.wl Blackshear/Soares normalized Xenopus egg laevis cDNA clone PBX0116E04 5', mRNA sequence.
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Xenopus laevis
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AW642247.1 GI:7399622
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Plate: 0116 row: E column:
Seq primer: T7 primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PCR PRimers
                         221
                                       /note="Vector: pT7T3-Pac; Site_1: EcoRI; Site_2: NotI;
/note="Vector: pT7T3-Pac; Site_1: EcoRI; Site_2: NotI;
PolyA-selected mRNA was prepared from unfertilized Xenopus
laevis eggs. The library was constructed in the vector
pT7T3-Pac as described in Bonaldo, M.F., Lennon, G. and
Soares, M.B. 'Normalization and subtraction: two
approaches to facilitate gene discovery, Genome Research
6:791-806, 1996. The first strand synthesis used a
NotI-dT18 primer; double stranded cDNAs were ligated to
EcoRI adapters, digested with NotI, and directionally
cloned into the NotI and EcoRI-digested pT7T3-Pac vector.
The library contained approximately 7.2 x 10~5
recombinants, with average insert sizes of 1-1.5 kb."
                recombinants, with
                                                                                                                                                                                                                                                                                                                                                                        /tissue_type="unfertilized egg"
/cell_type="unfertilized egg"
/dev_stage="unfertilized egg"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone="PBX0116E04"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Xenopus laevis"
/db_xref="taxon:8355"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /sex="female"
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169 g 137 t
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RESULT 37
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                                                                                                                    BG037489
677 bp mRNA linear EST 24-JAN-2001 dc51h04.y1 NICHD XGC Emb3 Xenopus laevis cDNA clone IMAGE:3400926 5' similar to TR:Q9V812 Q9V812 CG6550 PROTEIN. ;, mRNA sequence. BG037489 BG037489.1 GI:12480074
EST:
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BJ093942
BJ093942.1 GI:17593752
EST:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Expressed genes in X. laevis embryo Unpublished (2001)
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Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea;
                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea;
                                                                                           Xenopus laevis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: tshini@genes.nig.ac.jp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kitayama, A., Terasaka, C., Mochii, M.,
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anat
                                                                                                        African clawed frog
                            Xenopodinae; Xenopus.
1 (bases 1 to 677)
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/db_xref="taxon:8355"
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/dev_stage="stage 10.5"
144 c 174 g 146 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                library"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone="XL143p09"
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82.1%;
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 Anatomy Project (CGAP),
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                                                                                                                                                                                                                        Email: trop@sanger.ac.uk
Sanger Xenopus tropicalis EST project 2001
TROPICALIS_SEQUENCE_ID: TGas004k14.sp6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             western clawed frog.
Silurana tropicalis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA sequence.
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Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                      This sequence is from a Xenopus constructed by Aaron M. Zorn.
                                                                                                                                                                                                           Sequencing primer: SP6
                                                                                                                                                                                                                                                                               Hinxton, Cambridgeshire,
                                                                                                                                                                                                                                                                                                 Sanger Centre
                                                                                                                                                                                                                                                                                                                  Contact: Huckle E
                                                                                                                                                                                                                                                                                                                                   Sanger Xenopus tropicalis EST Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                        Rogers,J.
                                                                                                                                                                                                                                                                                                                                                                                     Huckle, E., Taylor, R.,
                                                                                                                                                                                                                                                                                                                                                                                                      Xenopodinae; Silurana.
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Amphibia; Batrachia; Anura; Me
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Email: cgapbs-r@mail.nih.gov
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone_lib="NICHD XGC Emb3"
/tissue_type="embryo (stages 24-25)"
/lab_host="DH1OB (phage-resistant)"
/note="Vector: pCMV-SPORT6; Site_1: Not1; Site_2: Sal1;
cloned unidirectionally. Primer: Oligo dT. Average insert
size 1.7 kb. Constructed by Life Technologies. Note: This
is a Xenopus Gene Collection (XGC) library."
a 135 c 168 g 157 t
/clone="TGas004k14"
/clone=lib="XGC-gastrula"
/clone_lib="XGC-gastrula"
/dev_stage="gastrula (stages 10.5-13 mixed)"
/lab_host="gastrula coli XL1-blue"
/note="Vector: pCS107; Site_1: EcoRI; Site_2: NotI; cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Xenopus laevis"
/db_xref="taxon:8355"
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                                                                                               /organism="Silurana tropicalis"
/db_xref="taxon:8364"
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Mesobatrachia; Pipoidea; Pipidae;
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23; Conservative
                                                      AL518419 LTI_NFL011_NBC1 Homo sapiens cDNA clone CS0DA009YM24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1111 Yata, Mishima, Shizuoka 411-8540, Japan
Tel: 81-559-81-6856
Fax: 81-559-81-6855
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                                                                            AL518419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: tshini@genes.nig.ac.jp.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Tadasu Shin-i
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                                      prime, mRNA
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                                                                                                                                                                                                                                                                                                                                                       /clone="MF01SSA190G08"
/clone_lib="MF01SSA cDNA"
/clone_lib="MF01SSA cDNA"
/sex="mixture of female and male"
/sex="mixture of female and male"
/sex="mixture of female and male"
/tissue_type="whole embryo"
/dev_stage="segmentation stage 20 - 25"
/dev_stage="segmentation stage 20 - 25"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /db_xref="taxon:8090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Oryzias latipes"
/strain="Hd-rR"
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1.3e+03;
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                        TITLE
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Full-length cDNA libraries and
Unpublished (2001)
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1 (bases I to 1014)
Human gene number estimate provided by genome wide analysis using Tetraodon nigroviridis DNA sequence
                                        Roest-Crollius,H., Jaillon,O., Dasilva,C., Bouneau,L., F
Bernot,A., Fizames,C., Wincker,P., Brottier,P., Quetier,
Saurin,W. and Weissenbach,J.
                                                                                                                                                         Charaterization and repeat analysis of the compact
                                                                                                                                                                            Bouneau, L., Billault, A., Quetler, F., Saurin, W., Bernot, A. and Weissenbach, J.
                                                                                                                                                                                                            Roest-Crollius, H., Jaillon, O., Dasilva, C., Fizames, C., Fisher, C.,
                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei; Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
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BP 191 91006 EVRY cedex - France
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note-*Organ: brain; Vector: pCMVSPORT 6; 1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-stranded cDNA was digested with Not I and cloned into the Not I and Eco RV sites of the pCMVSPORT 6 vector. Library is not normalized, but is the control for the normalized libraries. Library was constructed by Life Technologies. Contact: Feng Liang Life Technologies, a division of Invitrogen 9800 Medical Center Drive Rockville, Maryland 20850, USA Fax: (1) 301 610 8371 Email:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       http://fulllength.invitrogen.com"
336 c 270 g 231 t
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/db_xref="taxon:9606"
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82.1%;
                                                                                                                                                                                                                                                       Tetraodon.
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Pred. No. 1.4e+03;
                                                                                                                                     Tetraodon nigroviridis
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                                                                              Fisher, C.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      www.jby43 99 bp mRNA linear EST 14-JAN-1998 vv688060.rl Stratagene mouse skin (#937313) Mus musculus cDNA clone IMAGE:1227563 5' similar to gb:X01697 Mouse mRNA fragment for parottal sporestory workers (workers)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23; Conservative
                                                                                                                                                                                                                                                                                                                            Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Marra M/Mouse EST Project
WashU-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubu
Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M.,
Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B.,
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Location/Qualifiers
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/clone_11b="G"
/note="Genoscope sequence
PUC-Ori"
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/db_xref="taxon:99883"
                                                                          /organism="Mus musculus"
/strain="C57BL/6"
/db_xref="taxon:10090"
/clone="IMAGE:1227563"
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/tissue_type="whole skin"
                                                     /clone_lib="Stratagene mouse skin (#937313)"
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                             'sex="females"
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Pred. No. 1.4e+03;
0; Mismatches 5
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TITLE
  Query Match
Best Local Similarity
Matches 22; Conserv
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Best Local Similarity
Matches 22; Conser
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                                                                                                                                                                                                                                                                                                                                              Email: bjootusetigr.org
This clone is from an A. gambiae BAC library (ND-TAM) provided by F.H. Collins and sequenced by The Institute for Genomic Research (TIGR). The BAC library was generated from A. gambiae PEST strain DNA. All DNA was extracted from newly hatched first instar larvae on minimize the inclusion of DNA from microorganisms that inhabit the gut. The DNA is derived from mixed sexes of larvae. The BAC library was constructed at Texas A&M University BAC Center University, College Station, Texas 77843-2123, USA using a HindIII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Brendan J Loftus
Department of Eukaryotic Genomics
The Institute for Genomic Research
9712 Medical Center Dr., Rockville,
Tel: 301 838 0208
Fax: 301 838 3543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unpublished (2001)
Other_GSSs: AG-ND-125L2.TF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shetty, J., Malek, J., Koo, H., Direct Submission of BAC-end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BH389734 499 bp AG-ND-125L2.TR ND-TAM Anopheles
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  Conservative
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/note="Organ: skin; Vector: pBluescript SK-; Site_1:
/note="Organ: skin; Vector: pBluescript SK-; Site_1:
/note="Organ: skin; Vector: pBluescript SK-; Site_1:
/note="Organ: skin; Vector: pIner: Oli
dT. Whole skin from 11 week old C57BL/6 female mice.
Average insert size: 1.0 kb; Uni-ZAP XR Vector; -5/
adaptor sequence: 5/ GAGTTTTTTTTTTTTTTTTTT 3/"
                                                                                                                 /clone_lib="ND-TAM"
/note="Vector: pECBAC1; Site_1:
98 c 77 g 153 t
                                                                                                                                                                                                                    /organism="Anopheles gambiae"
/strain="PEST"
                                                                                                                                                                              /db_xref="taxon:7165"
/clone="AG-ND-125L2"
                                                                                                                                                                                                                                                               1. .499
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                    65.3%;
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                    Score 19.6;
Pred. No. 1.
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Pred. No. 1.4e+03;
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Mismatches
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sequences from
                      1.7e+03;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: cgapbs r@mail.nih.gov
Tissue Procurement: Dr. Mark Matson
CDNA Library Preparation: Ling Hong/Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLCM1913 row: j column: 12
                                                   GSS; genome survey sequence. Tetraodon nigroviridis.
                                                                                                                                                                                                        Tetraodon nigroviridis genome survey 001F16 of library G from Tetraodon n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    l Similarity
22; Conserv
Eukaryota;
                              Tetraodon nigroviridis
                                                                                                                      AL231101.1 GI:7890096
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National Institutes of Health, Mammalian
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EST
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/clone="nAGE:5440619"
/clone="lib="NH_MGC_113"
/lab_host="DH10B (phage-resistant)"
/nate="Organ: spleen; Vector: pOTB); Site_1: XhoI; Site_2:
/note="Organ: blage; Vector: poTB); Site_1: XhoI; Site_2:
/note="Organ: phage: Vector: poTB); Site_1: XhoI; Site_2:
/note="Organ: phage: Vector: poTB); Site_1: XhoI; Site_2:
/note="Organ: phage: Vector: poTB); Site_1: XhoI; Site_2:
/note="Organ: phage: Vector: poTB); Site_1: XhoI; Site_2:
/note="Organ: phage: Vector: poTB); Site_1: XhoI; Site_2:
/note="Organ: phage: Vector: poTB); Site_1: XhoI; Site_2:
/note="Organ: phage: Vector: poTB); Site_1: XhoI; Site_2:
/note="Organ: phage: Vector: poTB); Site_1: XhoI; Site_2:
/note="Organ: phage: Vector: poTB); Site_1: XhoI; Site_2:
/note="Organ: phage: Vector: poTB); Site_1: XhoI; Site_2:
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/note="Organ: phage: p
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Metazoa; Chordata;
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Craniata; Vertebrata; Euteleostomi;
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Search completed: September 10, 2002, 01:12:19 Job time: 5851 sec
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ORIGIN
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                                                                                                                                                                                              Query Match 65.3%; Score 19.6; DB 12; Length 878; Best Local Similarity 84.6%; Pred. No. 1.9e+03; Matches 22; Conservative 0; Mismatches 4; Indels 0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (12-APR-2000) to the EMBL/GenBank/DDBJ databases This sequence is a single read and was generated as part of a large scale clone-end sequencing project of the Tetraodon nigroviridis genome. For more information, please take a look at http://www.genoscope.cns.fr/Tetraodon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3 (bases 1 to 878)
Genoscope
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 (bases 1 to 878) Roest-Crollius, H., Jaillon,O., Dasilva,C., Bouneau,L., Fisher,C., Bernot,A., Fizames,C., Wincker,P., Brottier,P., Quetier,F., Saurin,W. and Weissenbach,J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Weissenbach, J. Charaterization and repeat analysis of the compact genome of the freshwater pufferfish Tetraodon nigroviridis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 (bases 1 to 878)
Roest-Crollius, H., Jaillon, O., Dasilva, C., Fizames, C., Fisher, C.,
Bouneau, L., Billault, A., Quetier, F., Saurin, W., Bernot, A. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human gene number estimate provided by genome wide analysis using Tetraodon nigroviridis DNA sequence
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Sequence of vascul	Alternative form o	Parapox virus VEGF	Human VEGF-B trunc	Human VRF-2 trunca	Murine vascular en	Vascular endotheli	Human VEGF-B trunc	Human VEGF-3 trunc	Human VEGF-B trunc	Human VRF-2 trunca	VEGF-B	VEGF-3	Human VEGF-B trunc	Vascular endotheli	Human VRF-2 trunca	Human VEGF-3 trunc	Human VEGF-B trunc	Human VEGF-B full	Human VRF-2 trunca	Human VEGF-3 trunc	Human VRF (VEGF-re	Murine vascular en	Vascular endotheli	VEGF-3	human s	growth	PRO834	Human growth facto	Hexa-His-tagged hu	Murine vascular en	Heart vascular end		Murine VRF167. Mu

## ALIGNMENTS

RESULT AAW86202

Human VEGF-related factor (VRF)-2 sequence.

16-FEB-1999 (first entry)

AAW86202;

AAW86202 standard; protein;

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VEGF; VRP; vascular endothelial growth factor; VEGF-related protein; recombinant; truncated; gene therapy; angiogenesis; cardiac ischaemia; coronary; collateral vessel development; cell growth; migration; heart; lower limb ischaemia; stroke; peripheral vascular disease; intestine; wound healing; skin; VEGF-related factor; VRF; vascular permeability.
                               WPI; 1999-009426/01
                                                                                                                                       05-NOV-1998
                                                                                              25-APR-1997;
                                                                                                                  20-APR-1998;
                                                                                                                                                            WO9849300-A2
                                                                                                                                                                               Homo sapiens
                                                                        (COLL-) COLLATERAL THERAPEUTICS
                                                                                              97US-0842984.
                                                                                                                  98WO-US07801.
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New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate

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New truncated vascular
                                                            WPI; 1999-009426/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VEGF; VRP; vascular endothelial growth factor; VEGF-related protyrecombinant; truncated; gene therapy; anglogenesis; cardiac ische coronary; collateral vessel development; cell growth; migration;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human vascular endothelial growth factor (VEGF)-B sequence.
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99.3%;
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Pred. No. 4.7e-66;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             peripheral vascular disease;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 206;
   protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             intestine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein;
ischaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1;
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RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                           06-DEC-1995;
01-MAR-1995;
06-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (VEGF-related protein) subunits that have at least one amino acid (VEGF-related protein) subunits that have at least one amino acid whether the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated vRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, optionally expressed from gene therapy vectors, have in vivo and in vitro anglogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g.cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of
                                          (LUDW-)
                                                                                                                                                                                                                                                                                                                          Endothelial cell; proliferation; vascular endothelial growth factor; VPF VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration; vascular permeability factor; cell mitogen; angiogenesis; cell growth;
                                                                                                                                                              01-MAR-1996;
                                                                                                                                                                                              06-SEP-1996.
                                                                                                                                                                                                                             W09626736-A1
                                                                                                                                                                                                                                                                                             cancer; metastatic risk; tumour cell;
                                                                                                                                                                                                                                                                                                                                                                                               Heart vascular endothelial growth factor-B167.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW04826 standard;
                                                                                                                                                                                                                                                            Mus musculus
                                                                                                                                                                                                                                                                                                                embryonic
                                                                                                                                                                                                                                                                                                                                                                                                                                 28-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               angiogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              subunits - lack part of the N-terminal sequence, used to stimulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 wounds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Fig 1; 113pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QCECRPKKKDSAVKPD 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHS 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              represents the amino acid sequence of human vascular endothelial th factor (VEGF)-B protein. The invention provides truncated VRP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mspllrrlllvallqlartqapvsqfdgpshqkkvvpwidvytratcqprevvvplsmel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qcecrpkkkesavkpd
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (of skin or intestines), and to increase vascular permeability.
             ζ,
                                          LUDWIG INST CANCER RES
UNIV HELSINKI LICENSING
                                                                                                                                                                                                                                                                                                                development; wound healing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 188
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                                            HELSINKI LICENSING
                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                           95US-0569063.
95US-0397651.
95US-0469427.
                                                                                                                                                              96WO-US02957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Protein; 188
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89.7%;
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             Olofsson B,
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Pred. No. 2.3e-60;
""matches 9;
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                                            TID OY
             Pajusola K;
                                                                                                                                                                                                                                                                                              mouse.
                                                                                                                                                                                                                                                                                                              tissue reorganisation; antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 188;
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              healing, and tissue regeneration/reorganisation. The VEGF proteins of the invention share the anglogenic and other properties of VEGF, but are distributed and expressed in tissues differently to VEGF. The proteins can therefore be used to accelerate anglogenesis in wound healing. Antibodies against the proteins can be used for inhibiting anglogenesis. The antibodies can also be used diagnostically to quantitatively detectives. Primers complementary to the coding sequences for the proteins of the invention can also be used to detect VEGF-B coding sequences. Quantification of VEGF-B in cancer biopsy specimens may be useful as an indicator of metastatic risk. VEGF-B expression in a cell can be retarded using antisense sequences direct against the VEGF coding sequences, this is especially useful in retarding VEGF expression in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Vascular endothelial growth factor VEGF-B proteins - useful to accelerate angiogenesis in wound healing, also related nucleic acid and antibodies for cancer diagnosis
                                                                                                                                                                                                                                          Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAW04824-W04831 represent the vascular endothelial growth factor (VEGF) proteins of the invention, which promote endothelial or mesodermal cell proliferation. VEGF is also a glycosylated cationic dimer, and is sometimes referred to as vascular permeability factor (VPP). VEGF has diverse effects, depending on the specific biological context in which it is found. VEGF is a potent endothelial cell mitogen, and directly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 18; Page 55-56; 107pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1996-412582/41.
N-PSDB; AAT37910.
   24-NOV-1998
                                                                                                                                                                                                                                                                                                Vascular endothelial growth endothelial cell; angiogenes
                                                                                                                                                                                                                                                                                                                                                                                     Murine vascular endothelial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
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                                                               US5840693-A
                                                                                                                                                    Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW80490;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW80490 standard;
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                                                                                                                                                                             Location/Qualifiers
                                                                                                                   /note=
                                                                                                                                                                                                                                                                                                angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protein;
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                                                                                                                      "encoded
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                            factor; VEGF; proliferation; mouse;
                                                                                                                                                                                                                                                                                                                                                                                  growth factor (VEGF)-B167.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 644; DB 17;
Pred. No. 7.6e-60;
5; Mismatches 10
                                                                                                                   bу
                                                                                                                                                                                                                                                                                             tissue growth;
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RESULT
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Best Local :
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01-MAR-1995;
06-JUN-1995;
06-DEC-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence represents murine vascular endothelial growth face (VEGF)-B167. VEGF proteins are used for promoting proliferation of endothelial cells and for stimulating angiogenesis (the proliferation of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as angiogenesis is required by tumours as they need
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (LUDW-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vascular endothelial growth factor-B iso:forms, and DNA encoding them - useful for inducing angiogenesis and cellular proliferation, and raising antibodies to inhibit activities in e.g. tumours
                                                                                   Vascular endothelial growth factor 3; VEGF-3; splice variant; vascular expression; lymphatic; bone marrow; colon; heart; kidney; ovary;
                                                                        cancer; wounds;
                                                                                                                         Human
                                                                                                                                               19-JUN-2000
                                                                                                                                                                        AAY94806;
                                                                                                                                                                                                 AAY94806 standard; Protein; 206 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
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                                                                                                                                                                                                                                                           qcecrpkkkesavkpd 136
                                                                                                                                                                                                                                                                                                                                   MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHS 120
                                                                                                                       VEGF-3 splice variant
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                                                                                                                                                (first entry)
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95US-0397651.
95US-0469427.
95US-0569063.
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                                                                        autoimmune disease; HIV; inflammation;
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                                                                                                                                                                                                                                                                                                                                                                                                                          89.6%;
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7.6e-60;
hes 10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 188;
                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                         heart disease.
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24-FEB-2000. WO200009148-A1

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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cancer, wounds, autoimmune diseases, HIV, inflammation and heart disease. VEGF-3 may also be used to identify its own binding partners. VEGF-3 nucleotides are useful as diagnostic or prognostic markers and a naiternative to restriction fragment length polymorphism (RFLP). The nucleotides are also useful to prepare PCR primers for amplifying an nucleotides are also useful to prepare PCR primers for amplifying an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nucleic acids encoding them (AAA15748, AAA15762). The cDNA encoding VEGF-3 was initially isolated from a bone marrow cell line cDNA library. The cDNA encoding the variant VEGF-3 differs from sequence AAA15748 in that the A at position 498 in AAA15748 is not present in AAA15762. VEGF-3 is also expressed in colon, heart, kidney and ovary tissues, this pattern being consistent with vascular and lymphatic specific expression. VEGF-3 proteins and nucleotides are useful in preventing, treating or ameliorating various disorders and conditions associated with the vascular and lymphatic systems. These conditions and disorders include the conditions are conditions associated with the vascular and lymphatic systems. These conditions and disorders include
                                                                                             vas: endotherium; mesodermal cell; cationic dimer; tissue regeneration; vascular permeability factor; cell mitogen; angiogenesis; cell growth; embryonic development; wound healing: +ieenc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New human gene encoding vascular endothelial growth factor 3 and polypeptide encoded by the gene is useful for treating various disorders associated with vascular and lymphatic system -
                                                                                                                                                 Endothelial cell; proliferation; vascular endothelial growth factor; VPF;
                                                                                                                                                                                      Vascular endothelial growth factor-B186
                                                                                                                                                                                                                                                                                              AAW04830 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to human vascular endothelial growth factor 3 (VEGF-3, AAY94802), a splice variant of human VEGF-3 (AAY94806), and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hu J,
                                                 Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                isolating selected DNAs. The present sequence represents a splice variant of human VEGF-3.
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10-FEB-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     pagapvsqpdapghqrkvvswidvytratcqprevvvpltvelmgtvakqlvpscvtvqr 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           al Similarity
119; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25; Fig 4; 209pp; English.
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                                                                                  metastatic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       89.6%;
llarity 100.0%;
Conservative
                                                                                                                                                                                                                         (first entry)
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99US-0244694.
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                                                                                   risk;
                                                                                                                                                                                                                                                                                              Protein;
                                                                                   tumour cell; mouse.
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                                                                                                                                                                                                                                                                                                207
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Pred. No. 8.4e-60;
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RESULT AAB36296

AAB36296 standard; Protein;

DX DX AX II

AAB36296;

23-FEB-2001

(first entry)

Human vascular endothelial growth factor VEGF-B186

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                                                                                                                                                                                                                                                                                                                               CAMW04824-W04831 represent the vascular endothelial growth factor (VEGF) cc proteins of the invention, which promote endothelial or mesodermal cell contents of the invention, which promote endothelial or mesodermal cell contents of the invention. VEGF is also a glycosylated cationic dimer, and is cometimes referred to as vascular permeability factor (VPF). VEGF has cc diverse effects, depending on the specific biological context in which clit is found. VEGF is a potent endothelial cell mitogen, and directly contributes to induction of angiogenesis in vivo by promoting contributed and tissue regeneration/reorganisation. The VEGF proteins of the invention share the angiogenic and other properties of VEGF, but are cdistributed and expressed in tissues differently to VEGF. The proteins can therefore be used to accelerate angiogenesis in wound healing. Cc antibodies against the proteins can be used for inhibiting angiogenesis. CC Antibodies against the proteins can be used for inhibiting angiogenesis. CC of the invention can also be used to detect VEGF-B coding sequences. CC of the invention can also be used to detect VEGF-B coding sequences. CC quantification of VEGF-B in cancer biopsy specimens may be useful as an indicator of metastatic risk. VEGF-B expression in a cell can be remained using antisense sequences direct against the VEGF coding coding sequences, this is especially useful in retarding VEGF expression in
                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                       Matches.
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01-MAR-1995;
06-JUN-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Vascular endothelial growth factor VEGF-B accelerate angiogenesis in wound healing, and antibodies for cancer diagnosis
                                                                                                                                                                                                                                                                                       Sequence
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                                                                                                                                                                                                                     Local Similarity
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                                                                                                                                                    MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEL
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DB; AAT37914.
                                 QCECRPKKKDSAVKPD 136
                                                                                  MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHS 120
                                                                                                                                    mspllrrlllvallqlartqapvsqfdgpshqkkvvpwidvyaratcqprevvvplsmel
qcecrpkkkesavkpd
                                                                 \verb|mgnvvkqlvpscvtvqrcggccpddglecvptgqhqvrmqilmiqypssqlgemslee hs|
                                                                                                                                                                                                     121;
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95US-0397651.
95US-0469427.
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                                                                                                                                                                                                                   89.6%;
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                                                                                                                                                                                                     Score 644; DE
Pred. No. 8.5e
5; Mismatches
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                                                                                                                                                                                                                     DB 17;
.5e-60;
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Best Local S
Matches 121
                                                                                                                                                                                                                                                                                                                                                    Use of a polypeptide having the biological activity of vascular endothelial growth factor-B for stimulating angiogenesis of bone, healing of bone fractures and enhancing acceptance of an implant to bone -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; vascular endothelial growth factor; VEGF-B; bone growth; angiogenesis; neovascularisation; bone break; inflammation.
Key
Region
                                   Human vascular endothelial growth factor; hVEGF3; angiogenesis; tumour; inflammation; rheumatoid arthritis; diabetic retinopath psoriasis; bone; periodontium; ligament; antagonist.
                                                                                                                                                                                                                                                                                                      can
                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 37-38; 43pp; English
                                                                 Human vascular
                                                                                            AAW07611;
                                                                                                                                                                                                                                                                                                               growth
                                                                                                                                                                                                                                                                                                                                                                                              WPI;
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                      Homo
                                                                               01-SEP-1997
                                                                                                           AAW07611 standard;
                                                                                                                                                                                                                                                                          Sequence
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                                                                                                                                                                                                                                                                                              present invention discloses a use for human vascular endothelial with factor B (YEGF-B) in the stimulation of angiogenesis in bone. The be used to promote bone growth, stimulate the healing of breaks or ctures, secure an implant to the bone and to alleviate inflammation
                                                                                                                                                                                                       sapiens
                                                                                                                                                      QCECRPKKKDSAVKPD 136
                                                                                                                                                                                                                                                                                                                                                                                             2001-015797/02
                                                                                                                                               qcecrpkkkesavkpd
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                                                                                                                                                                                                                                             Similarity
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                                                                                                                                                                                                                                      Conservative
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                                                                              (first
                                                                endothelial
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Location/Qualifiers 69..82
                                                                                                           Protein;
                                                                              entry)
                                                                                                                                                                                                                                           89.6%;
                                                                                                                                                136
                                                                                                                                                                                                                                                                                                                                                                                                                         LICENSING
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                                                               growth factor 3.
                                                                                                           221
                                                                                                                                                                                                                                      5.
                                                                                                                                                                                                                                     Score 644; DB 22;
Pred. No. 8.5e-60;
5; Mismatches 10;
                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                           В,
                                                                                                                                                                                                                                                                                                                                                                                                                         LTD.
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                                                                                                                                                                                                                                                                                                                                                                                                           Eriksson
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                                          retinopathy;
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RESULT
AAY94802
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                             Vascular endothelial growth factor 3; lymphatic; bone marrow; colon; heart; autoimmune disease; HIV; inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY94802;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human VEGF-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
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10-AUG-1998;
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98US-0132088
                                                                                  99WO-US18054
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/note= "conserved PXCVXXXRCXGCCN magnetic and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle and particle a
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              89.6%; Score 644; 100.0%; Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                VEGF-3; vascular expression; kidney; ovary; cancer; wound
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 18;
9.2e-60;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        cancer; wounds;
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RESULT 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to human vascular endothelial growth factor 3 (VPGF-3, AAY94802), a splice variant of human VEGF-3 (AAY94806), and nucleic acids encoding them (AAA15748, AAA15762). The cDNA encoding VEGF-3 was initially isolated from a bone marrow cell line cDNA library. The cDNA encoding the variant VEGF-3 differs from sequence AAA15748 in the cDNA necoding the variant VEGF-3 differs from sequence AAA15748 in the AAA15762. VEGF-3 is also expressed in colon, heart, kidney and ovary tissues, this pattern being consistent with vascular and lymphatic specific expression. VEGF-3 proteins and nucleotides are useful in preventing, treating or ameliorating various disorders and conditions associated with the vascular and lymphatic systems. These conditions and disorders include cancer, wounds, autoimmune diseases, HIV, inflammation and heart disease, VEGF-3 may also be used to identify its own binding partners. VEGF-3 nucleotides are useful as diagnostic or prognostic markers and as an alternative to restriction fragment length polymorphism (RFLP). The nucleotides are also useful to prepare PCR primers for amplifying an isolating selected DNAs. The present sequence represents human VEGF-3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 119
01-MAR-1996;
01-MAR-1995;
06-JUN-1995;
06-DEC-1995;
                                                                                                                                                                                    vascular endothelial growth factor; VEGF; endothelial cell; andiogenesis
                                                                        01-MAR-1996;
                                                                                                     24-NOV-1998
                                                                                                                               US5840693-A
                                                                                                                                                             Mus
                                                                                                                                                                                                                                Murine vascular endothelial
                                                                                                                                                                                                                                                              29-JAN-1999
                                                                                                                                                                                                                                                                                          AAW80494;
                                                                                                                                                                                                                                                                                                                     AAW80494 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 11; Fig 1; 209pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New human gene encoding vascular endothelial growth factor 3 a polypeptide encoded by the gene is useful for treating various discrders associated with vascular and lymphatic system -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                           (first entry)
96US-0609443.
95US-0397651.
95US-0469427.
95US-0569063.
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                                                                        96US-0609443
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                                                                                                                                                                                                                                                                                                                   Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   89.6%; 5c.
100.0%; Pr
                                                                                                                                                                                                                               growth factor (VEGF)-B186
                                                                                                                                                                                                                                                                                                                     207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 644;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred.
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                                                                                                                                                                                     growth;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 21;
                                                                                                                                                                                                    proliferation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 221;
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                                                                                                                                                                                                     mouse;
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                                               Query Match
Best Local Similarity
                                 Matches
                                                                                                                                 The present sequence represents murine vascular endothelial growth face (VEGF)-1886. VEGF proteins are used for promoting proliferation of endothelial cells and for stimulating angiogenesis (the proliferation of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as anglogenesis is required by tumours as they need new blood supplies to grow and proliferate.
                                                                                                                                                                                                                                                                                                                                                  Vascular endothelial growth factor-B iso:forms, and DNA encoding them - useful for inducing angiogenesis and cellular proliferation, and raising antibodies to inhibit activities in e.g. tumours
                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                          Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (LUDW-) LUDWIG INST CANCER RES. (UYHE-) UNIV HELSINKI LICENSING
                                                                                                                                                                                                                                                                                                                                                                                                                   1999-034079/03.
DB; AAV63568.
                                 120;
                                                                                                                                                                                                                                                                                                                          1; Fig 13; 52pp; English.
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                                                                                                          207
                               Conservative
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                                               Score
Pred.
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                               Mismatches
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No. 1.
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                                               DB 20;
L.8e-59;
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                                                            Length 207;
                                 Indels
                               0,
                               Gaps
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RESULT 1
AAW86205
ID AAW86205
ID AAW86205
XX AAW8
AC AAW8
AC AAW8
XX VEG
KW FEG
KW FEG
KW COJ-
KW WOU
XX HOM
XX WOO
2X HOM
XX WOO
2X HOM
XX WOO
2X HOM
XX WOO
2X AW9
PPF 20-
XX 25-
PR 25-
                                                                                                                                                                       VEGF; VRP; vascular endothelial growth factor; VEGF-related protrecombinant; truncated; gene therapy; angiogenesis; cardiac isch coronary; collateral vessel development; cell growth; migration; lower limb ischaemia; stroke; peripheral vascular disease; intes
                                                                        05-NOV-1998
                                                                                                   WO9849300-A2
                                                                                                                                                                                                                                              Human
                                          20-APR-1998;
                                                                                                                               Homo
                                                                                                                                                           wound
                                                                                                                                                                                                                                                                          16-FEB-1999
                                                                                                                                                                                                                                                                                                                               AAW86205 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHS 120
                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                     qcecrpkkkesavkpd
                                                                                                                                                                                                                                                                                                                                                                                                                                                            mgnvvkqlvpscvtvqrcggccpddglecvptgqhqvrmqilmiqypssqlgemsleehs
                                                                                                                                                                                                                                                                                                                                                                                                                    limb ischaemia; stroke; peripheral va
healing; skin; vascular permeability.
                                                                                                                                                                                                                                            vascular endothelial growth factor (VEGF)-3 sequence.
                                                                                                                                                                                                                                                                         (first entry)
                                            98WO-US07801
                                                                                                                                                                                                                                                                                                                               protein; 221
                                                                                                                                                                                                                                                                                                                                                                                                      136
                                                                                                                                                                                                   protein;
ischaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
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25-APR-1997;

97US-0842984

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RESULT 1
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This represents the amino acid sequence of human vascular endothelial growth factor (VEGF)-B protein. The invention provides truncated VRP (VEGF-related protein) subunits that have at least one amino acid N-terminal to the first cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g.cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability.
                      22-DEC-1995;
02-MAR-1995;
20-NOV-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New truncated vascular endothelial growth factor-related subunits - lack part of the N-terminal sequence, used to
                                                                                                                                                                          Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             angiogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                            Peptide
                                                                                                                                                                                                   Mus
                                                                                                                                                                                                                          astroglial proliferation
                                                                                                                                                                                                                                                                Murine VRF167
                                                                                                                                                                                                                                                                                         30-NOV-1996
                                                                                                                                                                                                                                                                                                                                         AAW00864 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1999-009426/01
(AMRA-) AMRAD OPERATIONS PTY LTD
                                                                         22-FEB-1996;
                                                                                                  06-SEP-1996
                                                                                                                        W09627007-A1
                                                                                                                                                                                                                                     VRF; vascular endothelial growth
                                                                                                                                                                                                                                                                                                                  AAW00864;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
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                                                                                                                                                                                                   musculus
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                                                                                                                                                                                                                                                                                                                                                                                                                CGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          118;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fig 1; 113pp;
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                                                                                                                                                                                                                                                                                         (first
                      95AU-0007274.
95AU-0001457.
95AU-0006647.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3
                                                                        96WO-AU00094
                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                /label= Sig_peptide
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99.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       English.
                                                                                                                                                                                                                                                                                                                                         188
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Pred. No. 6.4e-59;
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                                                                                                                                                                                                                                       factor;
                                                                                                                                                                                                                                     VEGF;
                                                                                                                                                                                                                                       SOM175;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 221;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
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stimulate
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AAW00863
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Best Local
                                                                                                                                                                         Key
                                                                                                                                                                                                                                                                                                               AAW00863;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New growth
                                                                                                                                                           Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Weber
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                                                                                                                                                                                                                                                                                                                                                                 13
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22-DEC-1995;
02-MAR-1995;
20-NOV-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VRF167 (AAW00863) is the murine homologue of an alternatively spliced variant (AAW00726) of human vascular endothelial growth factor-like polypeptide SOM175 (AAW00725), a protein capable of inducing astroglia proliferation and of promoting neural survival and/or proliferation. Its amino acid sequence was deduced from a CDNA clone (AAT13810) isolated from a new-born mouse brain CDNA library. VRF167 shows 85% identity and 92% similarity to its human counterpart. It lacks 101 amino acids found in VRF186 (AAW00863), the murine homologue of SOM175, owing to a deletion of exon 6 during splicing.
                                                                                                                                                                                                                                                                                                                                                              \ensuremath{\mathsf{VRF}}\xspace , vascular endothelial growth factor; \ensuremath{\mathsf{VEGF}}\xspace , astroglial proliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1996-412774/41.
N-PSDB; AAT13810.
                                                                                                                                                                                                                                                                                                                                                                                                                                Murine VRF186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW00863 standard;
(AMRA-) AMRAD OPERATIONS PTY
                                                                                                                     22-FEB-1996;
                                                                                                                                                              06-SEP-1996
                                                                                                                                                                                                      WO9627007-A1
                                                                                                                                                                                                                                                                                                                            Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-NOV-1996
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 qcecrpkkkesavrpd 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEL 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QCECRPKKKDSAVKPD 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mspllrrlllvallqlartqapvsqfdgpshqkkvvpwidvyaratcqprevvvplsmel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            al Similarity
119; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         for inducing astroglial proliferation and promoting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5; Fig 9; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 factor related to vascular endothelial growth factor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
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                                      95AU-0007274.
95AU-0001457.
95AU-0006647.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AA;
                                                                                                                     96WO-AU00094.
                                                                                                                                                                                                                                      1..21
/label= Sig_peptide
                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               88.2%;
87.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Larsson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6;
LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 634;
Pred. No. 8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 17;
.5e-59;
                                                                                                                                                                                                                                                                                                                                                                                        SOM175; neuron;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 188;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           X
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 astroglial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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RESULT 14
AAW04827
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Best Local
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                                                       06-DEC-1995;
01-MAR-1995;
06-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Grimmond Weber G;
Alitalo K,
                                                                                                       01-MAR-1996;
                                                                                                                                                   W09626736-A1
                                                                                                                                                                           Mus musculus
                                                                                                                                                                                                          vascular permeability factor; cell mitogen; angiogenesis; cell growth;
embryonic development; wound healing; tissue reorganisation; antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VRF186 (AAW00863) is the murine homologue of human vascular endoth growth factor-like polypeptide SOM175 (AAW00725), a protein capabl inducing astroglial proliferation and of promoting neural survival and/or proliferation. Its amino acid sequence was deduced from a cDNA clone (AAT13809) isolated from a new-born mouse brain cDNA library. An alternatively spliced variant, VRF169 (AAW00864), was
                                                                                                                              06-SEP-1996
                                                                                                                                                                                                                                                                    Heart vascular endothelial growth factor-B174.
                                                                                                                                                                                                                                                                                                                   AAW04827;
                                                                                                                                                                                                                                                                                                                                         AAW04827 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 5; Fig 9; 113pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        survival
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            growth
                                                                                                                                                                                                                                                                                                                                                                                                                                            mspllrrlllvallqlartqapvsqfdgpshqkkvvpwldvyaratcqprevvvplsmel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1996-412774/41
                                                                                                                                                                                                                                                                                                                                                                                                             QCECRPKKKDSAVKPD 136
                                                                                                                                                                                                                                                                                                                                                                                                  qcecrpkkkesavrpd 136
                                                                                                                                                                                                                                   endothelium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                owth factor related to vascular endothelial growth factor - for inducing astroglial proliferation and promoting neuronal
                     LUDWIG INST CANCER RES. UNIV HELSINKI LICENSING
                                                                                                                                                                                                  metastatic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               207 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hayward
                                                       95US-0569063.
95US-0397651.
95US-0469427.
                                                                                                      96WO-US02957
                                                                                                                                                                                                                    proliferation; vascular endothelial growth factor; VPF; mesodermal cell; cationic dimer; tissue regeneration; lity factor; cell mitogen; angiogenesis; cell growth;
                                                                                                                                                                                                                                                                                                                                         Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   88.2%;
87.5%;
'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 XX,
Olofsson B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Larsson
                                                                                                                                                                                                                                                                                                                                         195 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 634;
Pred. No. 9.
                      LTD
                                                                                                                                                                                                  cell; mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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Pajusola
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nordenskjold
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 17;
}.5e-59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             n vascular endothelial
a protein capable of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
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it is found. VEGF is a potent endothelial cell mitogen, and directly contributes to induction of angiogenesis in vivo by promoting cendethelial cell growth during normal embryonic development, wound the cell growth during normal embryonic development, wound cendethelial cell growth during normal embryonic development, wound the invention share the angiogenic and other properties of VEGF but are cell distributed and expressed in tissues differently to VEGF. The proteins can therefore be used to accelerate angiogenesis in wound healing.

Can thibodies against the proteins can be used for inhibiting angiogenesis. The antibodies can also be used diagnostically to quantitatively detect VEGF-B. Primers complementary to the coding sequences for the proteins cof the invention can also be used to detect VEGF-B coding sequences.

Can didicator of metastatic risk. VEGF-B expression in a cell can be contacted using antisense sequences direct against the VEGF coding sequences, this is especially useful in retarding VEGF expression in
                              Query Match
Best Local :
   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sometimes referred to as vascular permeability factor (VPF). VEGF has diverse effects, depending on the specific biological context in which it is found. VEGF is a potent endothelial cell mitogen, and directly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           accelerate angiogenesis in wound healing, and antibodies for cancer diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1996-412582/41.
N-PSDB; AAT37911.
                                                                                                                                                               Sequence ·
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   proliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  proteins of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 18; Page 56-57; 107pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Vascular endothelial growth factor VEGF-B proteins -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW04824-W04831
                              Similarity
                                                                                                                                                                  195
Conservative
                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            represent the vascular endothelial growth factor (Vinvention, which promote endothelial or mesodermal VEGF is also a glycosylated cationic dimer, and is
                           87.7%;
                              Score 630.5;
Pred. No. 2.
   Mismatches
                           .1e-58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   also related nucleic
                                                             DB 17;
   10;
   Indels
                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               useful
7;
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Gaps
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                                                                                                                                           RESULT
       01-MAR-1996;
                                                              Vascular endothelial growth factor; VEGF; proliferation; mouse; endothelial cell; angiogenesis; tissue growth; organ repair.
                    24-NOV-1998
                                                                                   Murine
                                                                                                29-JAN-1999
                                                                                                               AAW80491
                                                                                                                             AAW80491 standard; Protein; 195
                                                                                                                                                                121
                                                                                                                                                                             114
                                                                                                                                                                                           61
                                                                                                                                           15
                                                                                                                                                                                                         61
                                                                                                                                                                                                                     MSLEEHSQCECRPKKKDSAVKPD 136
                                                                                                                                                                                          MGTVAKOLVPSCVTVQRCGGCCPDDGLECVPTGQfQVVM------QILMIRYPSSQLGE 113
                                                                                   vascular
                                                                                                 (first entry)
       96US-0609443
                                                                                   endothelial
                                                              angiogenesis;
                                                                                  growth
                                                              tissue growth;
                                                                                                                             ξ
                                                                                   factor
                                                                                   (VEGF)-B174.
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RESULT 16
AAE09217
 FTT FTT XXX
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Best Local S
Matches 121
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01-MAR-1995;
06-JUN-1995;
06-DEC-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence represents murine vascular endothelial growth factor (YEGF)-B174. VEGF proteins are used for promoting proliferation of endothelial cells and for stimulating angiogenesis (the proliferation of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as angiogenesis is required by tumours as they need new blood examples.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Vascular endothelial growth factor-B iso:forms, and DNA encoding them - useful for inducing angiogenesis and cellular proliferation, and raising antibodies to inhibit activities in e.g. tumours
Cleavage-site
                       Region
                                                Peptide
                                                                                      Homo sapiens.
                                                                                                               rheumatoid
                                                                                                                         Protein purification; affinity chromatography; angiogenesis; vascular endothelial growth factor; autotransplantation; tum
                                                                                                                                                              Hexa-His-tagged human
                                                                                                                                                                                         19-NOV-2001
                                                                                                                                                                                                                  AAE09217;
                                                                                                                                                                                                                                           AAE09217 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alitalo K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (UYHE-)
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                                                                                                                                                                                                                                                                                                         121
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                                                                                                                                                                                                                                                                                                                    MSLEEHSQCECRPKKKDSAVKPD 136
                                                                                                                                                                                                                                                                                                                                                                                                                      MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEL
                                                                                                                                                                                                                                                                                                                                                                                                      mspllrrlllvallqlartqapvsqfdgpshqkkvvpwidvyaratcqprevvvplsmel
                                                                                                                                                                                                                                                                                                                                                                     MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRM-----QILMIRYPSSQLGE
                                                                                                                                                                                                                                                                                                        msleehsqcecrpkkkesavkpd
                                                                                                                                                                                                                                                                                                                                                        mgnvvkqlvpscvtvqrcggccpddglecvptgqhqvrmqvpgpmgqilmiqypssqlge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CUDWIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity 84.0
21; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                supplies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         195
                                                                                                               arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eriksson
                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6; 52pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HELSINKI LICENSING LTD
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95US-0397651.
95US-0469427.
95US-0569063.
                      /label= .
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/label=
14..19
                                                            ocation/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     87.7%;
84.6%;
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                                                                                                               diabetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             grow and proliferate.
                                                                                                                                                             VEGF-B167 protein
                                   Leader_sequence
             Hexa-His_tag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Olofsson B,
                                                                                                                                                                                                                                           189
                                                                                                                                                                                                                                                                                                                                                                                                                                                           5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 630.5; DB 2
Pred. No. 2.1e-58;
5; Mismatches 10
                                                                                                             retinopathy; His
                                                                                                                                                                                                                                           ₽
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          10;
                                                                                                            tag;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                            human; VEGF-B167
                                                                                                                                                                                                                                                                                                                                                                                                                                                          7;
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Matches 116;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Purifying a protein or polypeptide, e.g. vascular endothelial growth factor (VEGF)-B isoform, comprises subjecting a biological sample to affinity chromatography to allow the full length to bind and not the
                                                                                                                                                              Growth
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                                                                                Homo sapiens.
                                                                                                                                   Growth factor; pharmaceutical
                                                                                                                                                                                                              Human growth
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                                                                                                                                                                                                                                                                                                                                                                             Protein;
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Matches 115
08-MAR-1999;
02-JUN-1999;
23-JUN-1999;
07-JUL-1999;
26-JUL<sub>-</sub>1999;
                                                                                                                                                                                                                                                                                                                          Human; tumour; diagnosis; neoplastic disease; neoplastic cell groproliferation; tumourigenesis; identification; cancer; cytostation nootropic; neuroprotective; antiinflammatory; immunosuppressive; immunostimulant; antianglogenic; leukaemia; lymphoid malignancy; neuronal disorder; glial disorder; astrocytal disorder; angiogen. hypothalamic disorder; glandular disorder; macrophagal disorder; phabital disorder; stromal disorder; blastocoelic disorder; inflammatory disorder; immunologic disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This invention describes the novel preparation of biologically active dimers of recombinant human growth factors of the cysteine knot family starting from cellular inclusion bodies. Such dimers are are useful in pharmaceutical compositions and the method provides yields of 31-39.7% in examples, compared with about 10% for the conventional method (see Biochemistry 28 (1989) 2956). AAY08278-Y08301 are human growth factor protein fragments used in the method of the invention.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VEGF-b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        86.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      factor dimers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 624;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rinas U,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 20;
8.3e-58;
hes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MBH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   neoplastic cell growth;
; cancer; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ħ
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those characterised by overexpression and/or activation of the amplified PRO genes. Exemplary conditions or disorders to be treated with such antibodies and other compounds include benign or malignant tumours (e.g., renal, liver, kidney, bladder, breast, gastric, ovarian, colorectal, prostate, pancreatic, lung, vulva, thyroid, hepatic carcinomas, sarcomas, glioblastomas, and various head and neck tumours), leukaemias and lymphoid malignancies, other disorders such as neuronal, glial, astrocytal, hypothalamic and other glandular, macrophagal, epithelial, stromal and blastocoelic disorders, and inflammatory, angiogenic and immunologic disorders. AAC58242 to AAC58366 represent PCR primers and hybridisation probes used in the isolation of the human PRO sequences. AAC58367 to AAC58396 and AAB24057 to AAB24089 represent human PRO polynucleotide and protein sequences given in the exemplification of the necessary invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-NOV-1999;
20-DEC-1999;
05-JAN-2000;
                                                                                                                                                                                                                                                                                                         growth. The PRO polypeptides and nucleotides are useful in the treatment, diagnosis and prevention of cancer. The antibodies and other anti-tumour compounds maybe used to treat various conditions, including
                                                                                                                                                                                                                                                                                                                                                               The present invention describes an isolated antibody that binds to one of the human PRO proteins designated PRO212, PRO290, PRO341, PRO531 PRO619, PRO717, PRO809, PRO830, PRO848, PRO943, PRO1005, PRO10097, PRO8107, PRO1111, PRO1153, PRO1182, PRO1184 PRO1187, PRO1030, PRO33, PRO39, PRO834, PRO1317, PRO1710, PRO2094, PRO2145 OR PRO2198. PRO antagonists can be used to inhibit tumour cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB;
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 61; Fig
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Thirty
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ashkenazi AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GETH ) GENENTECH INC.
                                     present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRO polynucleotides encoding ent, diagnosis and prevention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CK,
 167
                                       invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US28313.
99WO-US30911.
2000WO-US00219.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   50; 286pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ž
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRO polypeptides, useful of cancer -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hillan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ζ,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Roy
                                                                                                                                                                                                                                                                                                                                                                                                         PRO1184,
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Query Match
Best Local
                               Matches
22 PVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGC
                                       ocal Similarity
                             86.8%;
llarity 100.0%;
Conservative (
                             0;
                                       Score 624;
Pred. No.
                               Mismatches
                                      8
                                                   DB
                               .3e-58;
s 0;
                                                Length 167;
                               Indels
                             0;
                             Gaps
                               0
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Q 밁 82 CPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD pvsqpdapghqrkvvswidvytratcqprevvvpltvelmgtvakqlvpscvtvqrcggc 60

61 cpddglecvptgqhqvrmqilmirypssqlgemsleehsqcecrpkkkdsavkpd

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RESULT 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         growth
                                                                                                                                                                                                                                                                                                                                                                                     factor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         factor protein
                                                                                                                                                                                                                                                                                                                                                                                     human;
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                                                                                                                                                                                                                                                                                                                                                                                     dimer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         fragment
                                                                                                                                                                                                                                                                                                                                                                             cysteine
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pharmaceutical

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RESULT :
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Best Local Sim
Matches 115;
                                                                                                                                                                                              Human; vaccination; gene therapy; nutritional supplement; stem cell proliferation; haematopoiesis; nerve tissue regeneration; immune suppression; immune stimulation; anti-inflammatory; leukaem
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This invention describes the novel preparation of biologically active dimers of recombinant human growth factors of the cysteine knot family starting from cellular inclusion bodies. Such dimers are are useful if pharmaceutical compositions and the method provides yields.of 31-39.7 in examples, compared with about 10% for the conventional method (see Biochemistry, 28 (1989) 2956). AAY08278-Y08301 are human growth factors
                             Tang YT,
                                                                         18-APR-2000;
26-JAN-2001;
                                                                                                         16-APR-2001;
                                                                                                                                 25-OCT-2001
                                                                                                                                                     WO200179449-A2
                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                          Novel human secreted protein #268.
                                                                                                                                                                                                                                                                  18-DEC-2001
                                                                                                                                                                                                                                                                                                             AAU29777 standard; Protein; 795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein fragments used in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 14;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Preparing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Erdmann H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GBFB ) GES BIOTECHNOLOGISCHE FORSCHUNG MBH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-NOV-1997;
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                                                    (HYSE-)
                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                       82 CPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD 136
                                                                                                                                                                                                                                                                                                                                                                                                                        22 PVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGC
                                                                                                                                                                                                                                                                                                                                   20
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          2001-611725/70
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity 100.
15; Conservative
                                                    HYSEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        active growth
                               Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Page 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              186 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kaerst U,
                                                                         2000US-0552929
2001US-0770160
                                                                                                           2001WO-US08656
                                                                                                                                                                                                                                                                (first entry)
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                                Drmanac
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 86.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mueller C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         factor dimers
                                RI
                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 624; DB 20;
Pred. No. 9.5e-58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         inclusion bodies in
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AAW86236
ID AAW8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 117; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 polypeptides and antibodies to the polypeptides are useful for determining the presence of or predisposition to a disease associated with altered levels of polypeptide. The polypeptides are also useful for identifying agents (agonists and antagonists) that bind to them. Cells expressing the proteins are useful for identifying a therapeutic agent for use in treatment of a pathology related to aberrant expression or physiological interactions of the polypeptide. Vectors comprising the nucleic acids encoding the polypeptides and cells genetically engineered to express them are also useful for producing the proteins are useful in genetic vaccination, testing and therapy, and can be used as nutritional supplements. They may be used theraps stem cell proliferation; to regulate haematopoiesis; and in bone. Certifies a proliferation; to regulate haematopoiesis; and in bone. Certifies a proliferation; to regulate haematopoiesis; and in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nucleic acids encoding a range of human polypeptides, useful in genetic vaccination, testing and therapy \mbox{-}
                                                                                                                                                                                                                                                               VEGF; VRP; vascular endothelial growth factor; VEGF-related prote recombinant; truncated; gene therapy; angiogenesis; cardiac ische coronary; collateral vessel development; cell growth; migration; lower limb ischaemia; stroke; peripheral vascular disease; intest
                                                                                                                                                                                                                                                                                                                                                   Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW86236 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         bone, cartilage, tendon and/or nerve tissue growth or regeneration; immune suppression and/or stimulation; as anti-inflammatory agents; in treatment of leukaemias. AAU29510-AAU33304 represent the amino ac
             Bohlen P;
                                                                                                               20-APR-1998;
                                                                                                                                                05-NOV-1998
                                                                                                                                                                                 WO9849300-A2
                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                  wound
                                                                                                                                                                                                                                                                                                                                                                                    16-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                   AAW86236;
                                             (COLL-) COLLATERAL THERAPEUTICS
                                                                              25-APR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          566
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CECRPKKKDSAVKPD 136
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                                                                                                                                                                                                                                              healing;
                                                                                                                                                                                                                                                                                                                                              VEGF-3 full length sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ent of leukaemias. AAU29510-AAU33304 represent the amino of novel human secreted proteins of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Α,
                                                                                                                                                                                                                                                skin;
                                                                                97US-0842984.
                                                                                                               98WO-US07801
                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      86.0%;
86.7%;
                                                                                                                                                                                                                                              vascular permeability.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Score 618; DB
; Pred. No. 2.3e
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                     A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      618; DB 22;
No. 2.3e-56;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            polypeptides
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                                                                                                                                                                                                                                                                                                 protein;
ischaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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RESULT 2
AAW04828
ID AAW0
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AC AAW0
XX Endo
CKW Endo
KW VEGE
KW VASC
XX WO96
XX WO96
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YX O1-9
PR 01-9
PR 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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Best Local
                                                                                                                                                                  06-DEC-1995;
01-MAR-1995;
06-JUN-1995;
                                                                                 (LUDW-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration; vascular permeability factor; cell mitogen; angiogenesis; cell growth; embryonic development; wound healing; tissue reorganisation; antibody; cancer; metastatic risk; tumour cell; mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to truncated VRP (vascular endothelial growth factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits of a subunits, optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAN86234 to AN86239 represent full length VRP sequences from which the truncated fearwards approach.
                            Alitalo K,
                                                                                                                                                                                                                                                                                01-MAR-1996;
                                                                                                                                                                                                                                                                                                                                       06-SEP-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Endothelial cell; proliferation; vascular endothelial growth factor; VPF
                                                                                                                                                                                                                                                                                                                                                                                              W09626736-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Vascular endothelial growth factor-B112.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW04828 standard; Protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
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                                                                                 LUDWIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
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                            Eriksson
                                                                              HELSINKI LICENSING LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
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                                                                                                                                                                  95US-0569063.
95US-0397651.
95US-0469427.
                                                                                                              INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ą,
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                                                                                                                                                                                                                                                                                96WO-US02957
                          'n
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99.1%;
                          Olofsson B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           133
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 616; DB 20;
Pred. No. 7.2e-57;
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                          Pajusola
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PR XXX
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                                                                                                                                                                                                                                                                                                                         RESULT 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CC it is found. VEGF is a potent endothelial cell mitogen, and directly CC contributes to induction of angiogenesis in vivo by promoting CC endothelial cell growth during normal embryonic development, wound CC healing, and tissue regeneration/reorganisation. The VEGF proteins of CC the invention share the angiogenic and other properties of VEGF, but are CC distributed and expressed in tissues differently to VEGF. The proteins CC can therefore be used to accelerate angiogenesis in wound healing. CC Antibodies against the proteins can be used for inhibiting angiogenesis. CC The antibodies can also be used diagnostically to quantitatively detect VEGF-B. Primers complementary to the coding sequences for the proteins CC of the invention can also be used to detect VEGF-B coding sequences. CC Quantification of VEGF-B in cancer biopsy specimens may be useful as an indicator of metastatic risk. VEGF-B expression in a cell can be coding antisense sequences direct against the VEGF coding sequences, this is especially useful in retarding VEGF expression in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                            01-MAR-1996;
                                                         24-NOV-1998
                                                                                      US5840693-A
                                                                                                                                                     endothelial
                                                                                                                                                               Vascular endothelial growth factor; VEGF; proliferation;
                                                                                                                                                                                               Murine vascular endothelial growth factor (VEGF)-B112
                                                                                                                                                                                                                                                               AAW80492;
                                                                                                                                                                                                                               29-JAN-1999
                                                                                                                                                                                                                                                                                           AAW80492 standard; Protein; 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW04824-W04831 represent the vascular endothelial growth factor (VEGF) proteins of the invention, which promote endothelial or mesodermal cell prolliferation. VEGF is also a glycosylated cationic dimer, and is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sometimes referred to as vascular permeability factor (VPF). VEGF has diverse effects, depending on the specific biological context in which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 18; Page 58; 107pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and antibodies for cancer diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1996-412582/41.
N-PSDB; AAT37912.
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                                                                                                                                                                                                                                                                                                                                                                                     QCECRPKKK 129
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                                                                                                                                                                                                                                                                                                                                                                     qcecrpkkk 129
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         angiogenesis in wound healing,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     133 AA;
                                                                                                                                                    cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                              (first entry)
                            96US-0609443
                                                                                                                                                    angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      85.1%;
89.1%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 612; DB 17;
Pred. No. 1.2e-56;
4; Mismatches 10;
                                                                                                                                                  tissue
                                                                                                                                                                                                                                                                                           ₽
                                                                                                                                                  growth;
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01-MAR-1996;

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RRESULT 2
AAW86235
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AC AAW8
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06-JUN-1995;
06-DEC-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (VEGF)-B112. VEGF proteins are used for promoting proliferation of endothelial cells and for stimulating angiogenesis (the proliferation of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as angiogenesis is required by tumours as they need
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (LUDW-)
                                                                                                                                                                                                             VEGF; VRP; vascular endothelial growth factor; VEGF-related protein; recombinant; truncated; gene therapy; anglogenesis; cardiac ischaemia; coronary; collateral vessel development; cell growth; migration; heart lower limb ischaemia; stroke; peripheral vascular disease; intestine; wound healing; skin; vascular permeability; VRF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vascular endothelial growth factor-B iso:forms, and DNA encoding them - useful for inducing angiogenesis and cellular proliferation, and raising antibodies to inhibit activities in e.g. tumours
                                                                                                                                                                                                                                                                                                                                                                                Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Fig 8; 52pp; English.
  20-APR-1998;
                                                        05-NOV-1998
                                                                                                          W09849300-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                         16-FEB-1999
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3F)-B112. VEGF proteins are used for promoting proliferation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qcecrpkkk 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QCECRPKKK 129
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   {\tt mspllrrlllvallqlartqapvsqfdgpshqkkvvpwidvyaratcqprevvvplsmel}
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                                                                                                                                                                                                                                                                                                                                                                                (VEGF-related factor)-2 full length sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
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95US-0469427.
95US-0569063.
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     98WO-US07801.
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89.1%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 133;
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20-APR-1998;

25-APR-1997;

97US-0842984 98WO-US07801 WO9849300-A2

Homo sapiens

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RESULT 2
AAW86218
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 114
                                                                                                                                                                               VEGF; VRP; vascular endothelial growth factor; VEGF-related prote recombinant; truncated; gene therapy; angiogenesis; cardiac ische coronary; collateral vessel development; cell growth; migration; lower limb ischaemia; stroke; peripheral vascular disease; intest wound healing; skin; vascular permeability.
                                                                                                                                                                                                                                                                                                                                                                                            AAW86218 standard; protein; 194 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         angiogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate
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                                                                                                                                                                                                                                                                                         Human VEGF-3
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                                                                                                                                                                                                                                                                                                                                                             AAW86218;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (COLL-) COLLATERAL THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-APR-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    82
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cpddglecvptgqhqvrmqilmirypssqlgemsleehsqcecrp-kkdsavkpd
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2B; 113pp; English.
                                                                                                                                                                                                                                                                                         truncated fragment 1.
                                                                                                                                                                                                                                                                                                                         (first entry)
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99.1%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <del>ب</del>
                                                                                                                                                                                                                                     protein;
ischaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    136
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RESULT 26
AAW86214
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to truncated VPP (vascular endothelial growth CC factor (VEGF) related protein) subunits that have at least one amino acid vierminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, coptionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAW86218 to AAW86221 represent truncated creaments of VEGF-3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 107
                                                                                                                                                                                                                  recombinant; truncated; gene therapy; anglogenesis; cardiac ischaemis coronary; collateral vessel development; cell growth; migration; heat lower limb ischaemia; stroke; peripheral vascular disease; intestine; wound healing; skin; VEGF-related factor; VRF; vascular permeability
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New truncated vascular endothelial growth factor-related problem its - lack part of the N-terminal sequence, used to st angiogenesis, e.g. for treating heart disease and ischaemia
                                                            25-APR-1997;
                                                                                                                                                         WO9849300-A2
                                                                                                                                                                                                                                                                                                                   Human
                                                                                                                                                                                                                                                                                                                                                   16-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 5; Fig 2C; 113pp; English.
                             (COLL-) COLLATERAL THERAPEUTICS
                                                                                          20-APR-1998;
                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                            AAW86214 standard; protein;
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                                                                                                                                                                                                                                                                                                                   VRF-2 truncated fragment 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     al Similarity
107; Conserv
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                                                            97US-0842984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ξ
                                                                                          98WO-US07801
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 579; DB 20;
Pred. No. 5.4e-53;
0; Mismatches 1
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stimulate
                                                                                                                                                                                                                                   intestine;
                                                                                                                                                                                                                                                                               protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                    ischaemia;
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               recombinant; truncated; gene therapy; angiogenesis; cardiac ische coronary; collateral vessel development; cell growth; migration; lower limb ischaemia; stroke; peripheral vascular disease; intest wound healing; skin; vascular permeability.
                                                                                                                                                                                                                                                                         20-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                 WO9849300-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
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                                                                                                                                                    (COLL-) COLLATERAL THERAPEUTICS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 cvptgqhqvrmqilmirypssqlgemsleehsqcecrp-kkdsavkpd
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29 PGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VRP; vascular endothelial growth factor; VEGF-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        107;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fig 2B; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      178 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ed vascular endothelial growth factor related lack part of the N-terminal sequence, used to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                97US-0842984.
                                                                                                                                                                                                                                                                         98WO-US07801.
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99.1%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 571.5;
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3e-52;
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stimulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein;
ischaemia;
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WPI; 1999-009426/01

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RESULT :
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to truncated VRP (vascular endothelial growth factor (VEGF) related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimula angiogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 5; Fig
New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate anglogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW86208 standard; protein; 160
                                                                                                                                                                                                                                                                                                                                                                                                  VEGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-FEB-1999
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                                                                                                 Bohlen
                                                                                                                                  (COLL-) COLLATERAL THERAPEUTICS
                                                                                                                                                                 25-APR-1997;
                                                                                                                                                                                                  20-APR-1998;
                                                                                                                                                                                                                                    05-NOV-1998
                                                                                                                                                                                                                                                                 W09849300-A2
                                                                                                                                                                                                                                                                                                                                  wound
                                                                                                                                                                                                                                                                                                                                                                                 recombinant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW86208
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD 136
                                                                  1999-009426/01
                                                                                                                                                                                                                                                                                                  sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cpddglecvptgqhqvrmqilmiqypssqlgemsleehsqcecrpkkkesavkpd 115
                                                                                                                                                                                                                                                                                                                             VRP; vascular endothelial growth factor; VEGF-related protoblinant; truncated; gene therapy; anglogenesis; cardiac ischary; collateral vessel development; cell growth; migration; limb ischaemia; stroke; peripheral vascular disease; intesi healing; skin; vascular permeability.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    104;
                                                                                                                                                                                                                                                                                                                                                                                                                                 VEGF-B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    from which the truncated fragments are created.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2A; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                               truncated fragment 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
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                                                                                                                                                                   97US-0842984
                                                                                                                                                                                                  98WO-US07801
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Pred. No. 3.1e-52;
5; Mismatches 6;
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                                                                                                                                                                                                                                                                                                                                                                                              protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                               ischaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to truncated VRP (vascular endothelial growth factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits are subunits optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart lower limb ischaemia; stroke and peripheral vascular disease; to treat ischaemia (e.g.cardiac, chronic coronary corchonic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAW86208 to AAW86213 represent truncated
                                   angiogenesis, e.g. fo
                                                                                                                                                                                                                                                                                                                                                        VEGF; VRP; vascular endothelial growth factor; VEGF-related protein; recombinant; truncated; gene therapy; angiogenesis; cardiac ischaemia; coronary; collateral vessel development; cell growth; migration; heart lower limb ischaemia; stroke; peripheral vascular disease; intestine; wound healing; skin; vascular permeability.
                                                          New truncated vascular endothelial growth factor-related subunits - lack part of the N-terminal sequence, used to
              Claim
                                                                                                        WPI; 1999-009426/01.
                                                                                                                                                                                                     25-APR-1997;
                                                                                                                                                                                                                                   20-APR-1998;
                                                                                                                                                                                                                                                                  05-NOV-1998
                                                                                                                                                                                                                                                                                                 WO9849300-A2
                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human VEGF-3 truncated fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW86219;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW86219
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      fragments of VEGF-B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim
                                                                                                                                                                     (COLL-) COLLATERAL THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               89
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CVPTGOHQVRMQILMIRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cvptgqhqvrmqilmiqypssqlgemsleehsqcecrpkkkesavkpd
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             Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         160 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
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              2C;
                                                                                                                                                                                                     97US-0842984
                                                                                                                                                                                                                                   98WO-US07801
                                             for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         76.4%;
91.7%;
                                          treating heart disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    189
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 549; DB 20;
Pred. No. 6.1e-50;
5; Mismatches 4;
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                                             and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                          protein
stimulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
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                                                                                                                                                                                                                                                                                                                                                                                         heart;
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RESULT 30
AAW86215
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Best Local
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The invention relates to truncated VRP (vascular endothelial growth factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host
                                                                                                     New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate anglogenesis, e.g. for treating heart disease and ischaemia
                                                                       Claim 5; Fig 2B; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                               05-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                  WO9849300-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 recombinant; truncated; gene therapy; anglogenesis; cardiac ischaemia coronary; collateral vessel development; cell growth; migration; hear lower limb ischaemia; stroke; peripheral vascular disease; intestine; wound healing; skin; VEGF-related factor; VRF; vascular permeability.
                                                                                                                                                                                  WPI; 1999-009426/01.
                                                                                                                                                                                                                                                                                           25-APR-1997;
                                                                                                                                                                                                                                                                                                                          20-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human VRF-2 truncated fragment
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                      (COLL-) COLLATERAL THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           fragments of VEGF-3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                34 KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTG 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qhqvrmqilmirypssqlgemsleehsqcecrpkkkdsavkqd 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QHQVRMQILMIRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             kvvswidvytratcqprevvvpltvelmgtvakqlvpscvtvqrcggccpddglecvptg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VRP; vascular endothelial growth factor; VEGF-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     102;
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                                                                                                                                                                                                                                                                                                                          98WO-US07801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  76.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 548; DB Pred. No. 9.5e 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       heart;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
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RESULT 3
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Best Local
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                                                                                                                                                                                                     22-DEC-1995;
02-MAR-1995;
20-NOV-1995;
                                                                                                                                       Grimmond Weber G;
                                                                                                                                                                                                                                                                                                                                            Key
Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAW86214 to AAW86217 represent truncated fragments of VRF-2 (VEGF- related factor).
                       Claim 14;
                                                  survival
                                                            New growth useful for
                                                                                                                                                                                                                                                                                06-SEP-1996
                                                                                                                                                                                                                                                                                                         W09627007-A1
                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                           astroglial proliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                         Vascular endothelial growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Vascular endothelial growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW00728 standard; Protein; 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                   N-PSDB; AAT33613.
                                                                                                               WPI; 1996-412774/41
                                                                                                                                                                            (AMRA-) AMRAD
                                                                                                                                                                                                                                                       22-FEB-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW00728
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  34 KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTG 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QHQVRMQILMIRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qhqvrmqilmirypssqlgemsleehsqcecrp-kkdsavkpd
                                                                                                                                                   s
                      Page 48; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           173
                                                           factor related to vascular endothelial growth factor inducing astroglial proliferation and promoting neuro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                    Hayward NK,
                                                                                                                                                                             OPERATIONS
                                                                                                                                                                                                     95AU-0007274.
95AU-0001457.
95AU-0006647.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ą,
                                                                                                                                                                                                                                                       96WO-AU00094
                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                 /label= Sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      75.2%;
99.0%;
                                                                                                                                                                            PTY LTD
                                                                                                                                                     Larsson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                          factor; VEGF; SOM175-e4; neuron
                                                                                                                                                                                                                                                                                                                                                                                                                                                 factor-like protein SOM175-e4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 540.5; DB 2
Pred. No. 5.3e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                     'n
                                                                                                                                                     Nordenskjold
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
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                                                              neuronal
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Splice variants (AAW00726-28) of the

human vascular endothelial growth

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RESULT 3
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Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                factor-like polypeptide SOM175 (see also AAW00725) are products of cDNA clones (see also AAT33611-13) respectively lacking exon 6, exons 6+7, and exon 4 of the SOM175 gene (see also AAT33610). They show at least 1 of the properties of SOM175 including the ability to induce proliferation of vascular endothelial cells, to interact with flt-l/flk-1 receptors, and to induce cell migration, cell survival and/or an increase in intracellular levels of alkaline phosphatase. Recombinant SOM175 proteins can be used to induce astroglial proliferation and to promote neural survival and/or proliferation.
factor (VEGF) related protein) subunits that have at least one amino factor (VEGF) related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce truncated proteins recombinantly. The truncated VRP subunits, optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to
                                                                                                                                                                                           New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate anglogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                                                     05-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                          Bohlen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             coronary;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human VEGF-B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW86209 standard; protein;
                                                                                                                                                               Claim
                                                                                                                                                                                                                                                                                                                       (COLL-) COLLATERAL THERAPEUTICS.
                                                                                                                                                                                                                                                                                                                                                       25-APR-1997;
                                                                                                                                                                                                                                                                                                                                                                                    20-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO9849300-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 wound
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               recombinant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAW86209;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lower
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
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                                                                                                                                invention relates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1999-009426/01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQ 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEL 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VRP; vascular endothelial growth factor; VEGF-related protebinant; truncated; gene therapy; angiogenesis; cardiac ischerary; collateral vessel development; cell growth; migration; limb ischeemia; stroke; peripheral vascular disease; intest healing; skin; vascular permeability.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mgtvakqlvpscvtvqrcggccpddglecvptgqhqvrmq
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                                                                                                                                                             5; F1g
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                                                                                                                                                               2A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          truncated fragment
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                                                                                                                                                                                         e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA;
                                                                                                                                                                                                                                                                                                                                                       97US-0842984
                                                                                                                                                                                                                                                                                                                                                                                      98WO-US07801
                                                                                                                                                           113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73.6%;
                                                                                                                              to truncated VRP (vascular endothelial growth
                                                                                                                                                                                         treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 529; DB; Pred. No. 4.5
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2.
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hes 0;
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ischaemia;
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Best Loc
Matches
The invention relates to truncated VRP (vascular endothelial growth factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VEGF; VRP; vascular endothelial growth factor; VEGF-related protein; recombinant; truncated; gene therapy; angiogenesis; cardiac ischaemia; coronary; collateral vessel development; cell growth; migration; heart; lower limb ischaemia; stroke; peripheral vascular disease; intestine; wound healing; skin; vascular permeability.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    stimulate endothelial cell growth and migration in vitro; to treat lidisease; to treat ischaemia (e.g.cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to pihealing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAW86208 to AAW86213 represent truncated fragments of VEGF-B.
                                                                                                                                                                                                                                                         New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimula \ensuremath{\mathsf{N}}
                                                                                                                                                                                                                Claim
                                                                                                                                                                                                                                            angiogenesis,
                                                                                                                                                                                                                                                                                                           WPI; 1999-009426/01.
                                                                                                                                                                                                                                                                                                                                                                                                          25-APR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                          20-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9849300-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human VEGF-3 truncated fragment 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-FEB-1999
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96; Conserv
                                                                                                                                                                                                            Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        155 AA;
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                                                                                                                                                                                                            2C; 113pp; English.
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                                                                                                                                                                                                                                            e.g. for
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73.3%;
93.2%;
                                                                                                                                                                                                                                            treating heart
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                184
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Pred. No. 1.2e
4; Mismatches
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                                                                                                                                                                                                                                              disease
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                                                                                                                                                                                                                                              ischaemia
                                                                                                                                                                                                                                                              stimulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  to treat heart
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
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hearing permeability.
                     The invention relates to truncated VRP (vascular endothelial growth factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, or vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart lower limb ischaemia; stroke and peripheral vascular disease; to treat ischaemia (e.g.cardiac, chronic coronary or chronic healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAW86208 to AAW86213 represent truncated
                                                                                                                                                                                                                                                                                                                                                                                                               Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VEGF; VRP; vascular endothelial growth factor; VEGF-related protein; recombinant; truncated; gene therapy; angiogenesis; cardiac ischaemia coronary; collateral vessel development; cell growth; migration; hear lower limb ischaemia; stroke; peripheral vascular disease; intestine; wound healing; skin; vascular permeability.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         angiogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1999-009426/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bohlen
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-APR-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                       5; Fig 2A; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VEGF-B truncated fragment 3.
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99.0%;
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Pred. No.
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ischaemia;
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              healing or ... Sequence permeability. Sequence perments of VRF-2 (
                                       The invention relates to truncated VRP (vascular endothelial growth factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, particularly optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g.cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAW86214 to AAW86217 represent truncated
                                                                                                                                                                                                                                                                                                                New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate angiogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VEGF; VRP; vascular endothelial growth factor; VEGF-related prote recombinant; truncated; gene therapy; anglogenesis; cardiac ischa coronary; collateral vessel development; cell growth; migration; lower limb ischaemia; stroke; peripheral vascular disease; intest
                                                                                                                                                                                                                                                                                    Claim 5;
                                                                                                                                                                                                                                                                                                              angiogenesis, e.g. for treating
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93; Conservative
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Pred. No. 2.2e-46;
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                             factor).
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                                                                                                    factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAW86208 to AAW86213 represent truncated
                                                                                                                                                                                                                                                                                          The invention relates to truncated VRP (vascular endothelial factor (VEGF)-related protein) subunits that have at least or
                                                                                                                                                                                                                                                                                                                                       Claim
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                                                             Sequence
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                                                                                         . Sequences AAW86208 VEGF-B.
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99.0%;
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Score 504; DB 20; Pred. No. 3.1e-45;
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44 RATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILM 103

Matches Query Match Best Local :

Local

l Similarity 92; Conserv

Conservative

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68.7**%**; 98.9**%**;

Score 494; DB 20; Pred. No. 4.3e-44; Mismatches

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                                      factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, optionally expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular fragments of vectors.
                                                                                                                                                                                                                                                                                                          New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimula angiogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VEGF; VRP; vascular endothelial growth factor; VEGF-related protein; recombinant; truncated; gene therapy; angiogenesis; cardiac ischaemia; coronary; collateral vessel development; cell growth; migration; heart lower limb ischaemia; stroke; peripheral vascular disease; intestine;
Sequence
                                                                                                                                                                                                                                                The invention relates to truncated VRP (vascular endothelial growth
                                                                                                                                                                                                                                                                                Claim 5;
                                                                                                                                                                                                                                                                                                                                                                          WPI; 1999-009426/01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-APR-1998;
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                              tragments
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                                                                                                                                                                                                                                                                              Fig
                                of VEGF-3.
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 AA;
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                                                                                                                                                                                                                                                                                                                             stimulate
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                                                               Matches
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                                                                                                                                                                                                                                The invention relates to truncated VRP (vascular endothelial growth factor (VEGF)-related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, or vitro and in vitro applicable expressed from gene therapy vectors, have in vivo and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic
                                                                                                                                                                       lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAW86208 to AAW86213 represent truncated fragments of VEGF-B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate anglogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1999-009426/01
                                                                                                                                           Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VEGF: VRP: vascular endothelial growth factor; VEGF-related protein; recombinant; truncated; gene therapy; anglogenesis; cardiac ischaemicoronary; collateral vessel development; cell growth; migration; healower limb ischaemia; stroke; peripheral vascular disease; intestine wound healing; skin; vascular permeability.
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                             42 YTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI 101
                                                                               Local
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                                                                               Similarity
                                                                                                                                             147
                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                       2A; 113pp;
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                                                                          68.2%;
93.7%;
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                                                                            Score 490; L
                                                             Pred. No. 8.9
                                                            .9e-44;
es 2;
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                                                                                          Length 147;
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                                                                                               AAW04824-W04831 represent the vascular endothelial growth factor (VEGF) CC proteins of the invention, which promote endothelial or mesodermal cell cc proliferation. VEGF is also a glycosylated cationic dimer, and is contextimes referred to as vascular permeability factor (VPF). VEGF has CC diverse effects, depending on the specific biological context in which cit is found. VEGF is a potent endothelial cell mitogen, and directly contributes to induction of angiogenesis in vivo by promoting cc endothelial cell growth during normal embryonic development, wound healing, and tissue regeneration/reorganisation. The VEGF proteins of the invention share the angiogenic and other properties of VEGF, but are clistributed and expressed in tissues differently to VEGF. The proteins can threefore be used to accelerate angiogenesis in wound healing.

CC Antibodies against the proteins can be used for inhibiting angiogenesis. The antibodies can also be used diagnostically to quantitatively detect VEGF-B. Primers complementary to the coding sequences for the proteins of the invention can also be used to detect VEGF-B coding sequences.

CC quantification of VEGF-B in cancer biopsy specimens may be useful as an indication of the formation of the coding sequences.
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01-MAR-1995;
06-JUN-1995;
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Sequence
                                    retarded using antisense sequences direct against the VEGF coding sequences, this is especially useful in retarding veces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Vascular endothelial growth factor VEGF-B accelerate angiogenesis in wound healing, and antibodies for cancer diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alitalo K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Endothelial cell; proliferation; vascular endothelial growth factor; VPF; VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration; vascular permeability factor; cell mitogen; angiogenesis; cell growth; embryonic development; wound healing; tissue reorganisation; antibody; cancer; metastatic risk; tumour cell; mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 18; Page 53-54; 107pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1996-412582/41.
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Best Local
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01-MAR-1995;
06-JUN-1995;
06-DEC-1995;
                                                                                                                          The present sequence represents murine vascular endothelial growth factor (VEGF)-B. The nucleic acid sequence is translated in two different reading frames. The proteins are used for promoting proliferation of endothelial cells and for stimulating anglogenesis (the proliferation of new capillaries form pre-existing blood vessels). These activities are useful for treating tissue growth and repair, including organ repair. This is also useful in pregnancy, in follicle development, as these processes must occur in development of the placenta. The proteins can also be used to raise antibodies, either for use in detection of the proteins or as inhibitors of their action. This is especially useful as anglogenesis is required by tumours as they need new blood employed.
                                                                                                                                                                                                                                                                                                                Vascular endothelial growth factor-B iso:forms, and DNA encoding them - useful for inducing angiogenesis and cellular proliferation, and raising antibodies to inhibit activities in e.g. tumours
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US5840693-A
                                                                                                                                                                                                                                                                                          Claim 1; Fig 1; 52pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cell;
                                                                                                                                                                                                                                                                                                                                                                                                                Eriksson
                                                                                                                                                                                                                                                                                                                                                                                                                                          HELSINKI LICENSING LTD OY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96US-0609443.
95US-0397651.
95US-0469427.
95US-0569063.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96US-0609443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        angiogenesis;
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                                                                                                                                                                                                                                                                                                                                                                                                                Olofsson B,
                                                                                                                   and proliferate.
                        Score 489; DB Pred. No. 7.3e 3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                factor; VEGF; proliferation; mouse;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              growth factor (VEGF)-B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. 7.3e-44; 3; Mismatches 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     tissue growth; organ repair.
                                                                                                                                                                                                                                                                                                                                                                                                                Pajusola
                        DB 20;
'.3e-44;
les 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98
                                                 Length 102;
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                           Indels
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                          Gaps
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33

RKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPT 92

В 20

ratcqprevvvpltvelmgtvakqlvpscvtvqrcggccpddglecvptgqhqvrmqilm 60 RATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILM 103

44

Query Match Best Local S Matches 92

Similarity 92; Conser

67.7%; nilarity 98.9%; Conservative

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Score 486.5; DB 20 Pred. No. 2.3e-43; 0; Mismatches 0;

20;

163; 1;

Indels Length

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RESULT 41
AAW86217
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                            factor (VEGF) related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, optionally expressed from gene therapy vectors, have in vitro and in vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAW86214 to AAW86217 represent truncated fragments of VRF-2 (VEGF- related factor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VEGF; VRP; vascular endothelial growth factor; VEGF-related protein; recombinant; truncated; gene therapy; angiogenesis; cardiac ischaemia; coronary; collateral vessel development; cell growth; migration; heart lower limb ischaemia; stroke; peripheral vascular disease; intestine; wound healing; skin; VEGF-related factor; VRF; vascular permeability.
                                                                                                                                                                                                                                                                                                                                                                    New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate angiogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAW86217 standard; protein; 163
Sequence
                                                                                                                                                                                                                                                                                               The invention relates to truncated VRP (vascular endothelial growth
                                                                                                                                                                                                                                                                                                                                    Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1999-009426/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-APR-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAW86217;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (COLL-) COLLATERAL THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    62 gqhqvrmqilmiqypssqlgemsleehsqcecrpkkk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rpvvpwidvyaratcqprevvvplsmelmgnvvkqlvpscvtvqrcggccpddglecvpt 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5; Fig 2B; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VRF-2 truncated fragment 4.
163
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A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ischaemia;
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RESULT 42
AAW86213
AAW8622
XX AAW862
XX AAW862
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                                                                                                                                                                                                                                                                      Query Match
Best Local
                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to truncated VRP (vascular endothelial growth factor (VEGF) related protein) subunits that have at least one amino acid N-terminal to the first Cys of the core sequence deleted. Host cells transformed or transfected with expression vectors containing nucleic acids encoding the truncated VRP subunits are used to produce the truncated proteins recombinantly. The truncated VRP subunits, or vitro angiogenic activity and are used to stimulate angiogenesis, particularly coronary collateral vessel development in cases of cardiac ischaemia; to stimulate endothelial cell growth and migration in vitro; to treat heart disease; to treat ischaemia (e.g. cardiac, chronic coronary or chronic lower limb ischaemia; stroke and peripheral vascular disease); to promote healing of wounds (of skin or intestines), and to increase vascular permeability. Sequences AAW86208 to AAW86213 represent truncated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New truncated vascular endothelial growth factor-related protein subunits - lack part of the N-terminal sequence, used to stimulate angiogenesis, e.g. for treating heart disease and ischaemia
                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1999-009426/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bohlen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO9849300-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    permeability. Sequen
fragments of VEGF-B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (COLL-) COLLATERAL THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-APR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-NOV-1998
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                                                               104
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         61
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                                                                                                                           _
                                 IRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD 136
                                                                                                                                                   RATCQPREVVVPLTVELMGTVAKQLYPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILM 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IRYPSSQLGEMSLEEHSQCECRPKKKDSAVKPD 136
                                                                                                                  ratcqprevvvplsmelmgnvvkqlvpscvtvqrcggccpddglecvptgqhqvrmqilm
   iqypssqlgemsleehsqcecrpkkkesavkpd
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         healing;
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                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                           145 AA;
                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2A; 113pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         skin; vascular permeability.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-US07801
                                                                                                                                                                                                                                                                      66.5%;
93.5%;
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                                                                                                                                                                                                                                                                      Score 478; DB 20; Pred. No. 1.6e-42;
                                                                                                                                                                                                                                          Mismatches
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                                                                                                                                                                                                                                                                                                 20;
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                                                                                                                                                                                                                                          Indels
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ischaemia;
                                                                                                                                                                                                                                       Gaps
                                                                                                                     60
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AAR22348
ID AAR2
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RESULT

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AAR22348 standard; Protein; 146

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RESULT 4
AAX33440
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homolog of human vascular endothelial growth factor useful for stimulating endothelial cell proliferation, e.g. for stimulating angiogenesis or tissue repair or for immunomodulation \,\cdot\,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             D1701; vascular endothelial growth factor; PPV-VEGF; angiogenesis; endothelial cell proliferation; gene therapy; diagnostic; tissue rimmunomodulation; dendritic cell differentiation; DNA vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Fig 2; 16pp; German.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (PLAC ) MAX PLANCK GES FOERDERUNG WISSENSCHAFTEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             27-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DE19813774-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Parapox virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-DEC-1999
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132
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kk 133
                                                                                                                                                                                                                                                  KK 128
                                                                                                                         fkpscvplmrcggccndeglecvpteefnitmqimrikphqgqhigemsflqhnkcecrp
                                                                                                                                                                                    LVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP 126
                                                                                                                                                                                                                                                                                                                LAALLQLAPAQAPVSQPDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQ 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ç
                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Roettgen M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            190
                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ą,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98DE-1013774.
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                                                                                                                                                                                                                                                                                                                                                                                                            37.68;
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                                                                                                                                                                                                                                                                                                                                                                                  22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    190
                                                                                                                                                                                                                                                                                                                                                                                                            Score 270.5; DB 2
Pred. No. 1.5e-20;
                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Buettner
                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 20;
                                                                                                                                                                                                                                                                                                                                                                                  42;
                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 190;
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                                                                                                                                                                                                                                                                                                   Multiple cDNAs encoding alternative forms of the VEGF A-subunit were amplified using PCR primers as in AAQ23049 and AAQ23050. Three sets of clones were identified. Clone #12 encoded the 164 amino acid secreted form of VEGF A-subunit (see AAR2234'). Clone #14 has a 135 bp deletion and thus encodes a 120 amino acid form and Clone #16 has a deletion and thus encodes a 120 amino acid form and Clone #16 has a
                                                                                                                                                                                                                                                                                                                        sets of cloner
                                                                                                                                                                                                                                                  72bp insertion and encodes a 188 amino acid mature protein (AAR22351). The deleted region lies between the second base of the Asn140 codon and the third base of the Arg184 codon. The 120 amino acid mature protein has Asn140 converted to Lys140.
                                                                                                                                                                                                                                                                                                                                                                                                       Vascular endothelial cell growth factor II - used as artificial blood vessels or to promote tissue repair
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAR22348;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bayne ML,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-SEP-1990;
21-SEP-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-SEP-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    polymerase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alternative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-JUL-1992
                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1992-098641/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-MAR-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EP476983-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Key
                                                                                                                                                                                                                                                                                                                                                                                 Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (MERI ) MERCK & CO INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nomodimer;
                         127
 132
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                                                            LVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP 126
                       KKKDSAVKPD 136
                                                                                                lalllylhhakwsqaapttegeqkahevvkfmdvygrsycrpietlvdifqeypdeieyi 71
                                                                                                                         LAALLQLAPAQAPVSQPDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQ 67
kk--drtkpe 139
                                                fkpscvplmrcagccndealecvptsesnvtmqimrikphqsqhigemsflqhsrcecrp 131
                                                                                                                                                    Similarity 57; Conserv
                                                                                                                                                                                                                                                                                                                                                                                 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                               AAQ23039
                                                                                                                                                                                                                                       AAQ23038-Q23059.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cell; GS-9L; conditioned medium; heterodimer; VEGF-II;
mitogenesis; vascular repair; blood vessel implant;
chain reaction; alternative splicing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conn GL,
                                                                                                                                                                                                                 146
                                                                                                                                                                                                                                                                                                                                                                              Page 14 and Fig 4; 38pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       form of VEGF mature A-subunit with 120 amino acids
                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                               Ä,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90US-0586640.
90US-0586638.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          91EP-0308489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /label=
27..146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /label= VEGF_A-subunit
/note= "120 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                            37.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Thomas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         signal
                                                                                                                                                 21;
                                                                                                                                                Score 269.5; DB 13;
Pred. No. 1.4e-20;
21; Mismatches 47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    XA.
                                                                                                                                                                                                                                                                                                                                                                              English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    long"
                                                                                                                                                                         DB 13;
                                                                                                                                                  Indels
                                                                                                                                                                        Length 146;
                                                                                                                                                                                                                                                                                                                                                                                                                      coating
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                                                                                                                                                                                                                          AAR27354
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Phe-Met-Asp-Val-Tyr-Gln from polypeptide L42 (residues 42-47) and Cys-Lys-Asn-Thr-Asp from polypeptide T38 (residues 164-168) were used to PCR amplify the central region of the cDNA for VEGF A chain.

A single band migrating at 420 bp was gel purified, digested with Sall, ligated into pGEM32f(+) and sequenced. The nucleotide sequence obtained (p4238) was used to design antisense and sense PCR primers to amplify the 5' and 3' ends of the cDNA. These 5' and 3' clones are denoted p5-15 and pW3, respectively. In addition to the cDNA coding the 164 amino acid secreted form identified by protein sequencing, two alternatively spliced cDNAs encoding a 146 amino acid forms are cloned and sequenced.
                                                                                                                                                           Matches
                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence of vascular endothelial cell growth factor VEGF 146 amino acid residue subunit.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Fig 4; 61pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vascular endothelial cell growth factor sub-units - which stimulate vascular endothelial cell growth, used for inducing tissue repair
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1992-325745/40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-MAR-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-MAR-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR27354 standard; Protein; 146
                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and growth.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bayne
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-SEP-1991.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vascular development;
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  132
                          127
                                                                             89
                                                    72
                                                                                                       12
                                                                                                                                10 LAALLQLAPAQAPVSQPDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQ 67
                                               kk--drtkpe
                        KKKDSAVKPD
                                                                                                      lalllylhhakwsqaapttegeqkahevvkfmdvyqrsycrpietlvdifqeypdeieyi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ΜĽ,
                                                                                                                                                         l Similarity
57; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAQ28953.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  endothelial
                                                                                                                                                                                                                          146 AA;
                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                91US-0676436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         92EP-0302750
 139
                          136
                                                                                                                                                                      37.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mitogen;
                                                                                                                                                        ; Score 269.5;
; Pred. No. 1.46
21; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               blood vessel;
ctor; neovascularisation
                                                                                                                                                                       1.4e-20;
                                                                                                                                                                                  DB 13;
                                                                                                                                                           47;
                                                                                                                                                           Indels
                                                                                                                                                                                 Length 146;
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RESULT

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Maximum Match 99%
Listing first 45
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being primand is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PIR_71:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query
Match
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## ALIGNMENTS

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vascular endothelial growth factor-related factor 186 precursor - mouse N;Alternate names: VRF 186 protein, VEGF 186 C;Species: Mus musculus (house mouse) C;Species: Mus musculus (house mouse) C;Date: 10-May-1996 #sequence\_revision 19-Jul-1996 #text\_change 05-Nov-1999 C;Accession: JC4679 A; Molecule type: mRNA
A; Residues: 1-188 <TON>
A; Residues: 1-188 <TON>
A; Cross-references: GB:U43837; NID:g1314335; PIDN:AAC52553.1; PID:g1314336
C; Comment: This factor is a mitogen, that is selective for endothelial cells, are notothelial growth factors 167 and VEGF 186. RESULT JC4679 R:Townson, S.; Lagercrantz, J.; Grimmond, S.; Silins, G.; Nordens Blochem. Blophys. Res. Commun. 220, 922-928, 1996
A;Title: Characterization of the murine VEGF-related factor gene. A; Reference number: JC4679; MUID:96183052
A; Accession: JC4680 RESULT JC4680 C; Accession: JC4680 R; Townson, S.; Lage: vascular endothelial growth factor-related factor 167 precursor - mouse N;Alternate names: VRF 167 protein C;Species: Mus musculus (house mouse) C;Date: 10-May-1996 #sequence\_revision 19-Jul-1996 #text\_change 05-Nov-1999 R;Townson, S.; Lagercrantz, J.; Grimmond, S.; Silins, G.; Norden: Biochem. Biophys. Res. Commun. 220, 922-928, 1996
A;Title: Characterization of the murine VEGF-related factor gene δÃ 밁 ρy В Qy A;Map position: 19
A;Introns: 1372
F;1-21/Domain: signal sequence #status
F;22-188/Product: vascular endothelial C;Genetics:
A;Gene: vrf Matches 121; Query Match Best Local : 121 121 61 61 Local Similarity  $\vdash$ 1 MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEL N MGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHS MGNVVKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIQYPSSQLGEMSLEEHS MSPLLRRLLLVALLQLARTQAPVSQFDGPSHQKKVVPWIDVYARATCQPREVVVPLSMEL Conservative 89.6%; ú Score Pred. Mismatches predicted <SIG>
growth factor-related 644; No. 2 DB 2; .2e-55; Silins, G.; Nordenskjoeld, M.; 10; Length 188; G.; Nordenskjoeld, M.; Indels factor #status 0; Gaps 120 60 60 predicted Weber, 0; and be]

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RESULT
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A; Molecule type: mRNA
A; Residues: 1-207 <TOW>
A; Cross-references: GB: U43836; NID: g1703480; C; Comment: This factor is a mitogen, that is lar endothelial growth factors 167 and 186.
                     glioma-derived vascular endothelial cell growth factor - C;Species: Rattus norvegious (Norway rat) C;Date: 16-Nov-1990 #sequence_revision 16-Nov-1990 #text_C;Accession: A35987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R:Sharma, H.S.; Tang, Z.H.; Gho, B.C.G.; Verdouw, P.D.
Blochim. Blophys. Acta 1260, 235-238, 1995
A;Title: Nucleotide sequence and expression of the porcine vascular endothelial growth A;Reference number: S52130; MUID:95143284
A;Accession: S52130
A;Status: preliminary
   R; Conn,
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A;Residues: 1-190 <SHA>
A;Cross-references: GB:X81380; NID:g587559;
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C;Species: Sus scrofa domestica (domestic pig)
C;Date: 14-Jul-1995 #sequence_revision 21-Jul-1995 #text_change 05-Nov-1999
C;Accession: S52130
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C;Keywords: growth factor
F;1-21/Domain: signal sequence #status predicted <SIG>
F;22-207/Product: vascular endothelial growth factor related factor #status
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 Bayne, M.L.;
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 Soderman, D.D.;
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                                                                                                                                                                                                                                                                                                                                                                                                            37.6%; Score 270.5; DB 2; 45.1%; Pred. No. 4.7e-19;
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5; Mismatches 10
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                                16-Nov-1990 #text_change
 Kwok, P.W.;
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K.A.;
                                      05-Nov-1999
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A; Molecule type: protein A; Residues: 27-38 < ROS> C; Keywords: alternative
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C;Date: 03-Feb-1994 #text_change
C;Date: 03-Feb-1994 #text_change
C;Accession: B44881; A43351; A61029
R;Breier, G.; Albrecht, U.; Sterrer, S.; Risau, W.
Development 114, 521-532, 1992
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A;Cross-references: GB:M32167; NID:g204287; P
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                                                                                                                                                                                                                                                                                                                       A;Reference number: A61029; MUID:91197543
A;Accession: A61029
A:Moleculo
                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: mRNA
A; Residues: 1-116, 'Er', 119-190 <CLA>
A; Residues: 1-116, 'Er', 119-190 ; NID: g202350; PIDN: AAA40547.1;
A; Cross-references: GB: M95200; NID: g202350; PIDN: AAA40547.1;
A; Note: sequence extracted from NCBI backbone (NCBIN: 110665,
A; Note: sequence extracted from NCBI backbone (NCBIN: 110665,
A; Note: sequence extracted from NCBI backbone (NCBIN: 110665,
A; Note: sequence extracted from NCBI backbone (NCBIN: 110665,
A; Title: Conditioned medium from NCBI sercoma 180 cells cont
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Experimental source: embryo
A;Note: sequence extracted from NCBI backbone (NCBIN:107622,
R;Claffey, K.P.; Wilkison, W.O.; Spiegelman, B.M.
J. Blol. Chem. 267, 16317-16322, 1992
J. Flol. Chem. 267, 16317-16322, 1992
A;Title: Vascular endochhelial growth factor. Regulation by C.A;Reference number: A43351; MUID:92355593
A;Accession: A43351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Molecule type: mRNA
A;Residues: 1-190 <BRE>
A;Cross-references: GB:S38083; NID:g249858; PIDN:AAB22253.1; PID:g249859
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                                                                             FKPSCVPLMRCAGCCNDEALECVPTSESNITMQIMRIKPHQSQHIGEMSFLQHSRCECRP
                     LVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP 126
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57; Conserv
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43.8%;
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Pred. No. 9.2e-19;
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, NCBIP:110675)
Folkman, J.
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N;Contains: vascular enverse.

C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Date: (03-Feb-1994 #sequence_revision (03-Feb-1994
C;Accession: A44881; C44881; A60932; S52136
R;Breier, G; Albrecht, U; Sterrer, S.; Risau, W.
Perelopment 114, 521-532, 1992
Perelopment 114, 521-532, 1992
                        vascular endothelial growth factor precursor (version 2) - bovine c;Specles: Bos primigenius taurus (cattle) C;Date: 30-Jun-1992 #sequence_revision 30-Jun-1992 #text_change 05-Nov-1999 C;Accession: B40080; B33787; A33255 R;Leung, D.W.; Cachianes, G.; Kuang, W.J.; Goeddel, D.V.; Ferrara, N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Molecule type: protein
A;Molecule type: protein
A;Residues: 27-46 <SUG>
C;Comment: Homodimers could be demonstrated for recombinant VEGF-2 but not VEGF-3.
C;Comment: Homodimers could be demonstrated for recombinant VEGF-2 but not VEGF-3.
C;Keywords: alternative splicing; angiogenesis; disulfide bond; glycoprotein; homo F;1-26/Domain: signal sequence #status predicted <SIG>
F;27-214/Product: vascular endothelial growth factor-3 #status experimental <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: protein
A; Residues: 27-33 <CLA>
R; Suglhara, T.; Kaul, S.C.; Mitsui, Y.; Wadhwa,
Biochim. Biophys. Acta 1224, 365-370, 1994
A; Title: Enhanced expression of multiple forms.
A; Reference number: $52136; MUID:95101726
A; Accession: $52136
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A; Cross references: GB:S38100; NID:9249860; PIDN:AAB22254.1; PID:9249861
A; Cross references: GB:S38100; NCBI backbone (NCBIN:107624, NCBIP:107625)
A; Note: Sequence extracted from NCBI backbone (NCBIN:107624, NCBIP:107625)
R; Clauss, M.; Gerlach, M.; Gerlach, H.; Brett, J.; Wang, F.; Familletti, P.C.; P
J. Exp. Med. 172, 1535-1545, 1990
A; Title: Vascular permeability factor: a tumor-derived polypeptide that induces A; Reference number: A60932; MUID:91079755
A; Accession: A60932
                                                                                                                                                                            RESULT
B40080
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A; Residues: 1-214 <BRE>
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42.3%;
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0, 1994
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C;Date: 28-Aug-1992 #sequence_revision 28-Aug-1992 #text_change 05-Nov-1999
C;Accession: A41551; C41551; B41551; A40454; B40454; C40454; A40079; A40080;
R;Houck, K.A.; Ferrara, N.; Winer, J.; Cachianes, G.; Li, B.; Leung, D.W.
Mol. Endocrinol. 5, 1806-1814, 1991
A;Title: The vascular endothelial growth factor family: identification of a 1
J. Biol. Chem. 26b, 1134, ----
A;Title: The human gene for vascular engovers.
A;Title: The human gene for vascular engovers.
A;0454; MUID:91268072
                                                                                R;Tischer, E.; Mitchell, R.; Hartman, J. Biol. Chem. 266, 11947-11954, 1991
                                                                                                                                          A; Molecule type: mRNA
A; Residues: 1-141, 227-232 <HOU>
                                                                                                                                                                                                                                                               A; Molecule type: mRNA
A; Residues: 1-140,'N',183-232 <HOU2>
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                                                                                                                                                                                                     A; Status: nucleic acid sequence not shown; not
                                                                                                                                                                                                                                    A; Accession: B41551
                                                                                                                                                                                                                                                                                                                          A;Status: nucleic acid sequence
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A; Residues: 1-232 <HOUl>
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permeability

121

human

(VEGF 121); VEGF 165; VEGF

3

not shown

PID:g246156

endothelial

growth factor.

Multiple

protein

form

T.; Silva, M.; Gospodarowicz, D.; Fiddes, J.C.;

compared with conceptual translation

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A; Molecule type: protein
A; Residues: 27-31 <FER>
C; Keywords: alternative splicing; glycoprotein
C; Keywords: alternative splicing; glycoprotein
F;1-26/Domain: signal sequence #status predicted <SIG>
F;27-190/Product: vascular endothelial growth factor #status
F;100/Binding site: carbohydrate (Asn) (covalent) #status pre
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Biochem. Biophys. Res. Commun. 161, 851-858, 1989
A;Title: Pituitary follicular cells secrete a novel heparin-binding growth factor A;Reference number: A33255; MUID:89286596
A;Accession: A33255
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A; Residues: 27-190 <TIS>
A; Cross-references: GB:M31836;
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A;Accession: B33787
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  132
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                                                                                                                                                                                                     10 LAALLQLAPAQAPVSQPDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQ
                                                                                                                                                                                                                                                                    Local
  X
                                    KK 128
                                                                                FKPSCVPLMRCGGCCNDESLECVPTEEFNITMQIMRIKPHQSQHIGEMSFLQHNKCECRP
                                                                                                                       LVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP 126
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Pred.
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No. 1.2e-18;
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R:Leung, D.W.; Cachianes, G.; Kuang, W.J.; Goeugel, D.V., Science 246, 1306-1309, 1989

A;Title: Vascular endothelial growth factor is a secreted A;Reference number: A40080; MUID:90069608

A;Accession: A40080
                                                                                                                                                                                                                                                                                                                                                                    A;Description: promotes fluid and protein leakage from blood vessels C;Keywords: alternative splicing; angiogenesis; dimer; disulfide bond; extracellular profile [:1-232/Froduct: vascular endothelial growth factor 206 precursor #status predicted <V2C [:1-165,183-232/Froduct: vascular endothelial growth factor 189 precursor #status predict [:1-141,227-232/Froduct: vascular endothelial growth factor 121 precursor #status predict [:1-141,227-232/Froduct: vascular endothelial growth factor 121 precursor #status predict [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status predicted <SIG> [:1-26/Domain: signal sequence #status p
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A;Cross-references: GDB:132244; OMIM:192240
A;Map position: 6p21-6p12
C;Function:
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A; Residues: 27-36;43-49,'R';72-76,'Q',78-81;59-71 <CON>
C; Comment: The most common of several alternatively spliced
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A;Title: Human vascular permeability factor. Isolation from U937 cells. A;Reference number: A34492; MUID:90062112
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A;Residues: 1-140,'N',183-232 <WEI>
A;Cross-references: EMBL:X62568; NID:g37658; PIDN:CAA44447.1;
A;Experimental source: AIDS-Kaposi's sarcoma cell
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A;Accession: A40079
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A;Cross-references: GB:M63971; GB:M63972; GB:M63973; GB:M63974; GB:M63975; GB:M63978
R;Keck, P.J.; Hauser, S.D.; Krivi, G.; Sanzo, K.; Warren, T.; Feder, J.; Connolly, D. Science 246, 1309-1312, 1989
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A; Molecule type: DNA
A; Residues: 1-165,18
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A; Residues: 1-140,'N',227-232 <WE2>
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A;Title: AIDS-associated Kaposi's sarcoma cells in culture express vascular endothelial A;Reference number: JQ1463; MUID:92231879
A;Accession: JQ1463
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A; Residues: 1-140,'N',183-232 <LEU>
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A; Residues: 1-165,183-232 < KEC>
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A; Residues: 1-140, 'N', 183-232 <TII>>
A; Cross-references: GB: M63971; GB: M63972;
A; Accession: C40454
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A;Accession: B40454
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12
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LALLLYLHHAKWSQAAPMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEY 71
                                                                          LAALLQLAPAQAPVSQPDAPG---HQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAK 66
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43.9%;
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Pred. No. 2.4e
21; Mismatches
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D.; Nelson,
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2.4e-18;
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A;Title: Vascular endothelial growth factor: a new member of the platelet-derived A;Reference number: A33787; MUID:90121225
                                                                                                                                                                                                                                                                                                                                                                                                                vascular endothelial growth factor (version 1) - bovine C;Species: Bos primigenius taurus (cattle) C;Date: 16-Mar-1990 #sequence_revision 16-Mar-1990 #text_change 05-Nov-1999 C;Accession: A33787 R;Tischer_E.; Gospodarowicz, D.; Mitchell, R.; Silva, M.; Schilling, J.; L.
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                                                                                                                                                                                                                                                                     A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-120 <TIS>
                                                                                                                                                                                                                                                                                                                                  A; Reference number: A33787; A; Accession: A33787
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R; Redmer, D.A.; Dai, Y.; Li, J.; Jo: submitted to the EMBL Data Library, A; Reference number: S57956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ovine vascular endothelial growth factor - sheep C;Species: Ovis orientalis aries, Ovis ammon aries C;Date: 13-Jan-1996 #sequence_revision 01-Mar-1996
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: mRNA
A; Residues: 1-146 < RED>
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nes 54; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10
                                                                                  26 PDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCP 83
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|||| : ||||| ||||||||| : |||| : : |||| :||| :||||
IFKPSCVPLMRCGGCCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECR 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KK 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FKPSCVPLMRCGGCCNDESLECVPTEEFNITMQIMRIKPHQSQHIGEMSFLQHNKCECRP 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LVPSCVTVQRCGGCCPDDGLECVPTG0HQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LAALLQLAPAQAPVSQPDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQ 67
DDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRPKK
                                           PMAEGGQKPHEVVKFMDVYQRSFCRPIETLVDIFQEYPDEIEFIFKPSCVPLMRCGGCCN 61
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                                                                                                                    35.38;
1 Similarity 46.28;
49; Conservation
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pred. No. 1.8; 
23; Mismatches
                                                                                                                           Score 253.5;
Pred. No. 1.4e
20; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Jones, S.C.; Moor,
ry, July 1995
                                                                                                                                                 1.4e-17;
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                                                                                                                                                                    DB 2;
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                                                                                                                             34;
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62

DESLECVPTEEFNITMQIMRIKPHQSQHIGEMSFLQHNKCECRPKK

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RESULT
A41236
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R;Lyttle, D.J.; Fraser, K.M.; Fleming, S.B.; Mercer, A.A.; Robinson, A.J.
J. Virol. 68, 84-92, 1994

A;Title: Homologs of vascular endothelial growth factor are encoded by the A;Reference number: A49530; MUID:94076465

A;Contents: NZ2

A;Contents: NZ2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Maglione, D.; Guerriero, V.; Viglietto, G.; Delli-Bovi, P.; Per Proc. Natl. Acad. Sci. U.S.A. 88, 9267-9271, 1991
A;Title: Isolation of a human placenta cDNA coding for a protein A;Reference number: A41236; MUID:92021031
A;Accession: A41236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       placental growth factor precursor - human C;Species: Homo sapiens (man) C;Date: 19-Jun-1992 #sequence_revision 19-Jun-1992 #text_change 05-Nov-1999 C;Date: 19-Jun-1992 #sequence_revision 19-Jun-1992 #text_change 05-Nov-1999 C;Accession: A41236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: DNA
A; Residues: 1-133 <LYP
A; Residues: 1-133 <LYP
A: Cross-references: GB:S67520; NID:g456897; PIDN:AAB29220.1; PID:g456899
A: Note: sequence inconsistent with nucleotide translation
A; Note: sequence extracted from NCBI backbone (NCBIN:141420, NCBIP:141425)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               vascular endothelial growth factor homolog A2R, 14.7K - Orf virus
C; Species: Orf virus
C; Date: 07-Apr-1994 #sequence_revision 18-Nov-1994 #text_change 08-Oct-1999
RESULT
I51295
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A;Map
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: mRNA
A; Residues: 1-149 < MAG>
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                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WSEVLKGSECKPRPIVVPVSETHPELTSQRFNPPCVTLMRCGGCCNDESLECVPTEEVNV 86
                                                                                                                      SQCECRPKKKDSAVKPD 136
                                                                                                                                                               EVEHMFSPSCVSLLRCTGCCGDENLHCVPVETANVTMQLLKIRSGDRPS--YVELTFSQH 125
                                                                                                                                                                                                 TVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR---YPSSQLGEMSLEEH 119
                                                                                                                                                                                                                                              PCFLQLLAGLALPAVPPQQWALSAGNGSSEVEVVPFQEVWGRSYCRALERLVDVVSEYPS
                                                                                                                                                                                                                                                                                     PLLRRLLLAALIQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMG 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TMELLGASGSGSNGMQRLSFVEHKKCDCRPR 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            36;
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46; Conserv
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                                                                                                                                                                                                                                                                                                                            Score 187.5; DB 2;
Pred. No. 4.5e-11;
22; Mismatches 62;
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Pred. No. 2.7e-12;
.9; Mismatches 35
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R:Lyttle, D.J.; Fraser, K.M.; Fleming, S.I.
J. Virol. 68, 84-92, 1994
A;Title: Homologs of vascular endothelial
A;Reference number: A49530; MUID:94076465
A;Contents: NZ7
A;Contents: NZ7

D49530

16K vascular endothelial growth factor homolog A2R C;Species: Orf virus C;Date: 07-Apr-1994 #sequence\_revision 18-Nov-1994 C;Accession: D49530

homolog A2R -

Orf virus

S.B.;

Mercer,

A.A.;

Robinson,

A.J.

#text\_change 08-Oct-1999

growth

factor

are

encoded by the poxvirus

0

RESULT 15 D49530

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vascular endothelial growth factor - quail (fragment)
C;Species: Phasianidae gen. sp. (quail)
C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 28-Feb-1997
C;Accession: 151295
R;Flamme, I; Breier, G.; Risau, W.
Dev. Biol. 169, 699-712, 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   placental growth factor precursor - rat C;Species: Rattus norvegicus (Norway rat) C;Date: 19-Oct-1995 #sequence_revision 19-Oct-1995 #text_change 05-Nov-1999 C;Accession: A56125 R;Disalvo, J.; Bayne, M.L.; Conn, G.; Kwok, P.W.; Trivedi, P.G.; Soderman, I
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R;DiSalvo, J.; Bayne, M.L.; Conn, G.; Kwok, J. Biol. Chem. 270, 711-7723, 1995
A;Title: purification and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier and characterization carrier an
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A; Residues: 1-128 <F
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: mRNA
A; Residues: 1-158 <DIS>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Status: preliminary; not compared
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A; Accession: I51295
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Matches 31
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120
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                                                                                                                                              61 HPNEVSHIFSPSCVLLSRCSGCCGDEGLHCVALKTANITMQILKIPPNRDPHSYV-EMTF 119
                                                                                                                                                                                                                                                                                                                                           4 LLRRLLLAALLQLAPAQAPVSQPD-APGH---QRKVVSWIDVYTRATCQPREVVVPLTVE 59
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                                                                   EEHSQCECRP
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SQDVLCECRP
                                                                                                                                                                                                                     LMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMI---RYPSSQLGEMSL 116
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129
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51.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  24.5%; Score 176; Di
36.2%; Pred. No. 6.20
Live 20; Mismatches
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Pred. No. 2.3e-10;
0; Mismatches 18;
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.2e-10;
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A; Reference number: $69208
A; Accession: $69208
A; Accession: $69208
A; Molecule type: mRNA
A; Residues: 1-419 <LEE>
A; Cross-references: EMBL:U43142; NID:g1150988; PIDN:AA
R; Morris, J.C.
submitted to the EMBL Data Library, May 1996
A; Reference number: H01557
A; Accession: G02659
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: mRNA
A; Molecule type: mRNA
A; Deside type: mRNA
A; D
A;Cross-references:
C;Genetics:
A;Gene: GDB:VEGFC; V
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A;Accession: S71443
A;Molecule type: protein
A;Residues: 'X',104-120 <JOU2>
A;Residues: 'X',104-120 Look, S.M.; Avraham, H.; Wood, W.I.
submitted to the EMBL Data Library, December 1995
A;Description: Vascular endothelial growth factor related protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: EMBL:X94216; NID:g1177488; PIDN:CAA63907.1; PID:e221096; A;Note: the nucleotide sequence was submitted to the EMBL Data Library, Decen A;Note: only a part of the translation is shown A;Note: this is a revision to the sequence from reference S61795 R;Joukov, V.; Pajusola, K.; Kaipainen, A.; Chilov, D.; Lahtinen, I.; Kukk, E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          vascular endothelial growth factor C precursor - hun K;Alternate names: FLT4 ligand DHM C;Species: Homo sapiens (man) C;Date: 27-Apr-1996 #sequence_revision 01-Nov-1996 #C;Accession: S69207; S61795; S71443; S69208; G02659 C;Accession: S69207, K; Kaipainen, A.; Chilov, Fernar 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1, 1997 1,
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A;Molecule type: DNA
A;Molecule type: DNA
A;Residus: 1-148 <LYT>
A;Cross-references: GB:S67522; NID:g456900; PIDN:AAB29223.1; PID:g456902
A;Note: sequence extracted from NCBI backbone (NCBIN:141422, NCBIP:141426)
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A; Residues: 70-419 <JOU1>
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A; Title: Corrigendum: A novel vascular endothelial A; Reference number: S69207; MUID:96203094
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A; Residues: 1-419 < JOU>
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                                                                                                                                                1-419
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                                                                                            EMBL:U58111;
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                                                                                            NID: g1373426; PIDN: AAB02909.1;
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A; ACCESSION.
A; Molecule type: mRNA
A; Residues: 1-193, 'DVR' <HOP>
A; Cross-references: EMBL: X06374; NID: g35363;
A; Cross-references: MV Knott, T.J.; Scot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Residues: 1-21 <TAK>
R; Bonthron, D.; Collins, T.; Grzeschik, K.
Genomics 13, 257-263, 1992
A; Title: Platelet-derived growth factor A
A; Reference number: A42002; MUID:92307656
                                                                                                                                                                          A;Cross-references: GB:X03795; NID:g35365; PIDN:CAA27421.1; A;Experimental source: clonal glioma cell line U-343 MGaC12: R;Hoppe, J.; Schumacher, L.; Eichner, W.; Weich, H.A. FEBS Lett. 223, 243-246, 1987
A;Title: The long 3'-untranslated regions of the PDGF-A and A;Reference number: S00173; MUID:88030061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: Homo sapiens (man)
C;Date: 04-Dec-1986 #sequence_revision 04-Dec-1986 #text_change 18-Feb-2000
C;Accession: A28964; S47564; A42002; A01379; S00173; A28122
R;Bonthron, D.T.; Morton, C.C.; Orkin, S.H.; Collins, T.
Proc. Natl. Acad. Sci. U.S.A. 85, 1492-1496, 1988
A;Title: Platelet-derived growth factor A chain: gene structure, chromosoma
A; Title: Structural characterization of the A; Reference number: A28122; MUID:88174698
                                           R;Rorsman, F.; Bywater, M.; Knott, Mol. Cell. Biol. 8, 571-577, 1988
                                                                                                                                                                                                                                                                                                             A; Molecule type: mRNA
A; Residues: 1-211 <BET>
                                                                                                                                                                                                                                                                                                                                                       A;Title: cDNA sequence and A;Reference number: A01379; A;Accession: A01379
                                                                                                                                                                                                                                                                                                                                                                                                                       R; Betsholtz, C.; Johnsson,
Nature 320, 695-699, 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Status: preliminary; not
A; Molecule type: DNA
A; Residues: 152-211 <BO2>
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A; Residues: 1-21 <TAK>
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A;Title: Gene regulation by t
A;Reference number: S47564; M
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A; Residues: 1-211 <BON>
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A;Accession: A28964
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F;1-12/Domain: signal sequence #status predicted <SIG>
F;13-102/Domain: propeptide #status predicted <PRO>
F;103-419/Product: vascular endothelial growth factor C #status experimental <MAT>
                                                                                                                                                   A; Accession: S00173
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   platelet-derived growth factor chain A precursor - human
N;Alternate names: PDGF A-chain; PDGF-1; PDGF-A; platelet
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      T.; Grzeschik, K.H.; van
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Pred. No. 1.6e-06;
5; Mismatches 51;
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                       human
                                                                PIDN:CAA29677.1; PID:g35364
tt, J.; Betsholtz, C.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PDGF
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C:Complex: homodimer; heterodimer (see PIR:PFHUG2)
C:Superfamily: platelet-derived growth factor
C:Keywords: alternative splicing; glycoprotein; growth factor; mitogen; platelet
F:1-20/Domain: signal sequence status predicted <SIG>
F:87-21/Product: platelet-derived growth factor chain A status predicted <MAT>
F:88-162/Region: receptor binding status predicted
F:96-140,119-177,133-179/Disulfide bonds: status predicted
F:123/Disulfide bonds: interchain (to chain B-133 in heterodimeric form) status
F:123/Disulfide bonds: interchain (to dain B-124 in heterodimeric form) status
F:132/Disulfide bonds: interchain (to 132 in homodimeric form) status
F:132/Disulfide bonds: interchain (to 132 in homodimeric form) status
F:132/Disulfide bonds: interchain (to 132 in homodimeric form) status
F:132/Disulfide bonds: interchain (to 132 in homodimeric form) status
F:134/Binding site: carbohydrate (Asn) (covalent) status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Residues: 1-63,'TRD',67-211 <ROR>
A;Cross-references: GB:M20488
A;Note: the authors translated the codon ACA for residue 64 as Arg, CGT for residue 65 a
A;Note: the authors translated the codon ACA for residue 64 as Arg, CGT for residue 65 a
C;Comment: Platelet-derived growth factor, a potent mitogen for cells of mesenchymal or:
C;Comment: A carboxyl-terminal propeptide may be removed from the precursor by proteoly:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R; Nakahara, K.; Nishimura, H.; Kuro-o, M.; Takewaki, S.; Iwase, M.; Ohkubo, Biochem. Biophys. Res. Commun. 184, 811-818, 1992
A;Title: Identification of three types of PDGF-A chain gene transcripts in 1 A; Reference number: JN0248; MUID:92246970
A;Accession: JN0248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  platelet-derived growth factor chain A3 precursor - rabbit (fragment)
c;Species: oryctolagus cuniculus (domestic rabbit)
C;Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 27-Jun-1994
C;Accession: JN0248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Superfamily: platelet-derived growth factor F;1-22/Domain: propeptide (fragment) #status predicted F;23-166/Product: platelet-derived growth factor A3 cha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
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A; Introns: 21/3; 54/1; 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C; Genetics
RESULT 19
JS0735
platelet-derived growth
C;Species: Oryctolagus
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                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: mRNA
A; Residues: 1-166 < NAK>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Gene: GDB: PDGFA
                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     102 LMIRY----PSSQLGEMSLEEHSQCEC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            45
                                                                                                                                                              62
                                                                                                                                                                                                                 76
                                                                                                                                                                                                                                                                                                                      19
                                                                                                                                                                                                                                                                  4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCQPREVV--VPLTVELMGTVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI 101
                                                                                                                                                                                                                                                             ARHVAEKPPAPVPVRRKRT-IEEAIPAICKTRTVIYEIPRS-QVDPTSANFLIWPPCVEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AKVEYVRKKPKLKEVQVRLEEHLECACATTSLNPDYREEDTGRPRESGKKRKRKRLKP 210
                                                                                                                                                              KRCTGCCNTSSVKCQPSRVHHRSVKVAKVEYVRKKPKLKEVQVRLEEHLECAC 114
                                                                                                                                                                                                            QRCGGCCPDDGLECVPTGQHQVRMQILMIRY----PSSQLGEMSLEEHSQCEC 124
                                                                                                                                                                                                                                                                                                                 AQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVV--VPLTVELMGTVAKQLV-PSCVTV 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AVCKTRTVIYEIPRS-QVDPTSANFLIWPPCVEVKRCTGCCNTSSVKCQPSRVHHRSVKV 152
                                                                                                                                                                                                                                                                                                                                                                          34;
                                                                                                                                                                                                                                                                                                                                                                                                Similarity
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growth factor chain Al precursor -
blagus cuniculus (domestic rabbit)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17.9%;
28.8%;
                                                                                                                                                                                                                                                                                                                                                                                                17.7%;
30.1%;
                                                                                                                                                                                                                                                                                                                                                                       24;
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                                                                                                                                                                                                                                                                                                                                                                  Score 127.5; I
Pred. No. 3.4e
24; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 129; DB 1
Pred. No. 3e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                .4e-05;
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                                                                                                                                                                                                                                                                                                                                                                                                                        DB 2;
                                                                                                                                                                                                                                                                                                                                                                       46;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    chain
                           rabbit
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                                                                                                                                                                                                                                                                                                                                                                                                                     Length
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                                                                                                                                                                                                                                                                                                                                                                       Indels
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                                                                                                                                                                                                                                                                                                                                                                       9;
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                                                                                                                                                                                                                                                                61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A.; Yazaki,
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C;Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 27-Jun-1994 (C;Accession: JS0735 R;Nakahara, K.; Nishimura, H.; Kuro-o, M.; Takewaki, S.; Iwase, M.; Ohkubo, Biochem. Biophys. Res. Commun. 184, 811-818, 1992 A;Title: Identification of three types of PDGF-A chain gene transcripts in A;Reference number: JN0248; MUID:92246970
                                                                                                                                                                                                                                                                                                C;Superfamily: platelet-derived growth factor F;1-20/Domain: signal sequence #status predicted <SIG>F;21-89/Domain: propeptide #status predicted <PRO>F;90-198/Product: platelet-derived growth factor Al chain
                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: mRNA
A; Residues: 1-198 <NAK>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Reference number: A; Accession: JS0735
                                                                                                                                                                                                                                                                                                                                                                                               A; Note: this protein corresponds to the endothelial type
                                                                                                                                                                                                          Best
                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                Query Match
129 KRCTGCCNTSSVKCQPSRVHHRSVKVAKVEYVRKKPKLKEVQVRLEEHLECAC
                                                                                                                                        19
                                                                                          71
                                                                                                                                                                                                          Local
                                           76 QRCGGCCPDDGLECVPTGQHQVRMQILMIRY----PSSQLGEMSLEEHSQCEC
                                                                                          ARHVAEKPPAPVPVRRKRT-IEEAIPAICKTRTVIYEIPRS-QVDPTSANFLIWPPCVEV
                                                                                                                  AQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVV--VPLTVELMGTVAKQLV-PSCVTV 75
                                                                                                                                                                                                          Similarity
                                                                                                                                                                                       Conservative
                                                                                                                                                                                                          17.7%;
30.1%;
                                                                                                                                                              Pred. No. 4e-05;
24; Mismatches 46
                                                                                                                                                                                       46;
                                                                                                                                                                                                                              2
                                                                                                                                                                                                                                                                                                                                                                                                  of
                                                                                                                                                                                                                                                                                                     #status
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                transcripts in rabbit
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  181
                                           124
                                                                                                                                                                                    9;
                                                                                                                                                                                                                                                                                                  predicted
                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                          <MAT>
                                                                                                                                                                                    5
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R;Bonthron, D.T.; Morton, C.C.; Orkin, S.H.; Collins, Proc. Natl. Acad. Sci. U.S.A. 85, 1492-1496, 1988 A;Title: Platelet-derived growth factor A chain: gene A;Reference number: A28964; MUID:88144463 platelet-derived growth factor chain A precursor splice C;Species: Homo sapiens (man) C;Date: 30-Jun-1989 #sequence\_revision 30-Jun-1989 #text C;Accession: B28964; B42002; B28122 A; Residues: 1-196 <BON> A; Molecule type: DNA A; Accession: B28964 B28964 30-Jun-1989 #text\_change gene structure, form 16-Jul-1999 chromosomal location

A;Cross-references: GB:M21571; GB:J03638; GB:M19984; GB:M19985; R;Bonthron, D.; Collins, T.; Grzeschik, K.H.; van Roy, N.; Speie Genomics 13, 257-263, 1992 A;Title: Platelet-derived growth factor A chain: confirmation of Speleman, GB:M19986; GB:M19987;

rowth factor A MUID:92307656 confirmation of localization 0f PDGF

A;Reference number: A42002; MUID:92:
A;Accession: B42002
A;Status: preliminary; not compared with conceptual translation

Scott, J.; Betsholtz,

ი

A-ch

A; Molecule type: DNA
A; Residues: 152-196 <BO2>
R; Rorsman, F.; Bywater, M.; Knott, T.J.; Sco
Mol. Cell. Biol. 8, 571-577, 1988
A; Title: Structural characterization of the
A; Reference number: A28122; MUID:88174698
A; Accession: B28122 human platelet-derived growth factor

A; Molecule type: mRNA A; Residues: 1-63, 'TRD',

A;Residues: 1-63,'TRD', 67-196 <ROR>
A;Cross-references: GB:M2048A
A;Note: the authors translated the codon
C;Comment: Exon 6 is spliced out of this ACA for variant residue splice f form. 64 as s Arg, For t g, CGT for the major residue splice f fo 6

A; Gene: GDB: PDGFA A; Cross-references: GDB:120266; OMIM:173430

A;Map position: 7p22-7p22 C;Superfamily: platelet-derived growth factor C;Keywords: alternative splicing; glycoprotein glycoprotein; growth factor; mitogen; platelet

Matches Local Similarity hes 30; Conserv Conservative 17.7%; 30.3%; 22; Score 127; Pred. No. 4 Mismatches 4.4e-05; DB 2; Length 196; Indels 12; Gaps 5

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platelet-derived growth factor chain A precursor - rat (fragment)
C:Species: Rattus norvegicus (Norway rat)
C:Date: 07-Apr-1994 **sequence_revision 07-Apr-1994 **text_change 16-Jul-1999
C:Accession: S25096; S33764
R:Herren, B.; Weyer, K.A.; Rouge, M.; Loetscher, P.; Pech, M.
submitted to the EMBL Data Library, July 1992
A:Description: Cross-species conservation in sequence and function of PDGF ligan
A;Reference number: S25096
A;Molecule type: mRNA
A;Residues: 1-197 <*HERl>
A;Cross-references: EMBL:Z14120; NID:956865; PIDN:CAA78490.1; PID:956866
R:Herren, B.; Weyer, K.A.; Rouge, M.; Loetscher, P.; Pech, M.
Biochim. Biophys. Acta 1173, 294-302, 1993
A;Title: Conservation in sequence and affinity of human and rodent PDGF ligands
A;Reference number: S33764; MUID:93305723
A;Accession: S3764
A;Molecule type: mRNA
A;Residues: 89-172 <*HER2>
A;Cross-references: EMBL:Z14120
C:Superfamily: platelet-derived growth factor
C;Keywords: growth factor; mitogen; platelet
                    A;Reference number: A26402; MUID:87146463

A;Accession: A26402

A;Molecule type: mRNA
A,Residues: 1-245 <VAN>
C;Genetics:
A;Genetics:
C;Genetics:
A;Genetics:
A;Ge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  platelet-derived growth factor chain B precursor - co
W;Alternate names: PDGF-related transforming protein
C;Species: Felis silvestris catus (domestic cat)
C;Date: 30-Jun-1989 #sequence_revision 30-Jun-1989 #1
C;Accession: A26402
                                                                                                                                                                                                                                                                                                                                                                                                                       R;Van den Ouweland, A.M.W.; Van Groningen, J.J.M.; Schalken, J.A.; Nuccleic Acids Res. 15, 959-970, 187 A;Title: Genetic organization of the c-sis transcription unit. A;Reference number: A26402; MUID:87146463
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Best Local S
Matches 31
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AVCKTRTVIYEIPRS-QVDPTSANFLIWPPCVEVKRCTGCCNTSSVKCQPSRVHHRSVKV 145
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31.3%;
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Pred. No. 4.4e-05;
0; Mismatches 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-Jun-1989 #text_change 31-Mar-1996
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C;Genetics:
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Best Local (
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90
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A;Title: Nucleotide sequence of the simian sarcoma virus genome:
A;Reference number: A03982; MUID:83144004
A;Accession: A01381
A;Molecule type: genomic RNA
A;Residues: 1-226 <DEV>
C:Genetian:
                                                                                                                                                                   A;Gene: sis
C;Superfamily: platelet-derived growth factor
C;Keywords: growth factor; transforming protein
C;Keywords: platelet-derived growth factor chain B similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: GB:M29464
C;Superfamily: platelet-deriv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Title: Selective expression of PDGF A and i A;Reference number: A37359; MUID:90169294 A;Accession: A37359 A;Status: preliminary; nucleic acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           platelet-derived growth factor chain A precursor - mouse
C;Species: Mus musculus (house mouse)
C;Date: 19-Mar-1993 #sequence_revision 19-Mar-1993 #text_change 07-May-1999
C;Accession: A37359
                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Species: simian sarcoma virus
C;Date: 23-Jul-1983 #sequence_revision 20-Sep-1984 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: mRNA
A; Residues: 1-196 <MER>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R;Mercola, M.; Wang, C.; Kelly, J.; Brownlee, C.; Jackson-Grusby, L.; Stiles, Dev. Biol. 138, 114-122, 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N; Alternate names: p28-s:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
mes 31; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AVCKTRTVIYEIPRS-QVDPTWANFLIWPPCVEVKRCTGCCNTSSVKCQPSRVHHRSVKV 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCQPREVV--VPLTVELMGTVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI 101
AECKTRTEVFEISRRLIDRTNANFLVWPPCVEVQRCSGCCNNRNVQCRPT---QVQLRPV 136
                                          ATCQPREVVVPLTVELMG-TVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL 102
                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                transforming protein (sis) -
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                                                                                   Conservative
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                                                                                                      17.1%;
34.8%;
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                                                                                                      Score 123; DB 1;
Pred. No. 0.00012;
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Pred. No. 5.
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                                                                                   Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    simian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                its receptor during early mouse embryogen
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5.5e-05;
hes 36;
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.4e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sarcoma
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                                                                                   29;
                                                                                                                         Length 226;
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                                                                                   Indels
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                                                                                   12;
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A; Molecule type: mRNA
A; Residues: 26-241 <MEI>
A; Cross-references: GB:X03702; NID:g35374; PIDN:CAA27333.1; PID:g35375
A; Cross-references: GB:X03702; NID:g35374; PIDN:CAA27333.1; PID:g35375
R; Antoniades, H.N.; Hunkapiller, M.W.
Science 220, 963-965, 1983
Science 220, 963-965, 1983
Fittle: Human platelet-derived growth factor (PDGF): amino-terminal amino
A; Reference number: A94271; MUID:83197379
A; Reference number: A94271; MUID:83197379
A; Accession: A94271
A; Molecule type: protein
A; Residues: 82-100, 'E', 102-104, 'C', 106, 'C', 108-110 <ANT>
A; Residues: 82-100, 'E', 102-104, 'C', 106, 'C', 108-110 <ANT>
A; Watterfield, M.D.; Scrace, G.T.; Whittle, N.; Stroobant, P.; Johnsson, A.;
Nature 104, 35-39, 1983
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A;Cross-references: GB:K01917; NID:g338197
R;Rao, C.D.; Igarashi, H.; Chiu, I.M.; Robbins, K.C.; Aaronson, S.A. Proc. Natl. Acad. Sci. U.S.A. 83, 2392-2396, 1986
A;Title: Structure and sequence of the human c-sis/platelet-derived A;Reference number: A23532; MUID:86205961
A;Accession: A23532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: GB:K01401; NID:g338206; PIDN:AAA60552.1; R;Chiu, I.M.; Reddy, E.P.; Givol, D.; Robbins, K.C.; Tronick Cell 37, 123-129, 1984
A;Title: Nucleotide sequence analysis identifies the human c A;Reference number: A21024; MUID:84205633
A;Accession: A21024
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N;Alternate names: PDGF B-chain; PDGF-B; PDGF-II; PDGF-related transforming
C;Species: Homo sapiens (man)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: GB:X02811; NID:g35371; PIDN:CAA26579.1; PR:Weich, H.A.; Sebald, W.; Schairer, H.U.; Hoppe, J. FEBS Lett. 198, 344-348, 1986
A;Title: The human osteosarcoma cell line U-2 OS expresses a A;Reference number: A25141; MUID:86164981
A;Accession: A25141
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C;Date: 18-Apr-1984 #sequence_revision 20-Sep-1984 #text_change 08-Dec-2000
C;Date: 18-Apr-1984 #sequence_revision 20-Sep-1984 #text_change 08-Dec-2000
C;Accession: A94276; A21024; A23532; A93366; A25141; A94271; A93308; A43499; S5611
R;Josephs, S.F.; Ratner, L.; Clarke, M.F.; Westin, E.H.; Reitz, M.S.; Wong-Staal,
A;Title: Human proto-oncogene
A;Reference number: A43499; MU
A;Accession: A43499
A;Status: not compared with co
A;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: mRNA
A; Residues: 1-241 < RAD(>
A; Residues: 1-241 < RAD(>
A; Cross-references: GB: M12783; GB: M16288; NID: g338210; PIDN: AAA60553.1;
R; Collins, T.; Ginsburg, D.; Boss, J.M.; Orkin, S.H.; Pober, J.S.
Nature 316, 748-750, 1985
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A;Title: Transforming potential of human c-sis nucleotide sequences encoding platelet-de A;Reference number: A94276; MUID:84250225

A;Accession: A94276
                                                                                                                                               R; Josephs, S.F.; Guo, C.; Ratner, L.; Science 223, 487-491, 1984
                                                                                                                                                                                                                                                                       Nature 304, 35-39, 1983
A;TILLe: Platelet derived growth factor is A;Reference number: A93308; MUID:83244981
A;Accession: A93308
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A;Accession: A93366
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A; Residues: 1-241 <COL>
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                               conceptual translation
                                                                                            ne nucleotide sequences
MUID:84097555
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F;1-20/Domain: signal sequence #status predicted <SIG>F;1-20/Domain: amino-terminal propeptide #status predicted <PRO>F;21-181/Domain: amino-terminal propeptide #status predicted <PRO>F;22-190/Product: platelet-derived growth factor chain B #status experimental <MAT> F;159-163/Region: receptor binding #status predicted F;191-241/Domain: carboxyl-terminal propeptide #status predicted <CTP>F;91-241/Domain: carboxyl-terminal propeptide #status experimental F;124/Disulfide bonds: interchain (to 133 in homodimeric form) #status experimental F;124/Disulfide bonds: interchain (to chain A-132 in heterodimeric form) #status pred F;133/Disulfide bonds: interchain (to 124 in homodimeric form) #status experimental
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A;Status recent type: mRNA
A;Residues: 'MFIMGL',22-200 <DIR>
A;Residues: 'MFIMGL',22-200 <DIR>
A;Cross-references: EMBL:X83705; NID:g951023; PIDN:CAA58679.1; PID:g951025
A;Cross-references: EMBL:X83705; NID:g951023; PIDN:CAA58679.1; PID:g951025
A;Cross-references: EMBL:X83705; NID:g951023; PIDN:CAA58679.1; PID:g951025
A;Cross-references: MFIMGL',22-200 <DIR>
A;Cross-references: MFIMGL',22-200 <DIR>
A;Cross-references: MFIMGL',22-200 <DIR>
A;Cross-references: MFIMGL',22-200 <DIR>
A;Cross-references: MFIMGL',22-200 <DIR>
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A;Title: The c-sis gene encodes a precursor A;Title: The c-sis gene encodes a precursor A;Title: The c-sis gene encodes a precursor A;Title: The c-sis gene
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A;Title: Purification and analysis of proteinase-resistant A;Reference number: 138108; MUID:92117992
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A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 'SLSL',17-20,'RQ',22-241 <JOH>
A;Cross-references: GB:X00556; GB:X00559; GB:X00560; GB:X00561; GB:X00562
A;Cross-references: GB:X00556; GB:X00559; GB:X00560; GB:X00561; GB:X00562
A;Dirks, R.P.H.; Onnekink, C.; Jansen, H.J.; de Jong, A.; Bloemers, H.P.J.
Nucleic Acids Res. 23, 2815-2822, 1995
A;Title: A novel human crsis mRNA species is transcribed from a promoter in A;Reference number: S58382; MUID:95388493
A;Accession: S58383
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Nucleic Acids Res. 13, 5007-5018, 1985
A;Title: Nucleotide sequence of transforming
A;Reference number: 137266; MUID:85269623
A;Accession: 137266
                                                                                                                                                                                                                                                                                                                                                                                                                     A;Gene: GDB:PDGFB
A;Cross-references: GDB:120709; OMIM:190040
A;Map position: 22q12.3-22q13.1
A;Introns: 57/3; 94/1; 192/3; 241/1
C;Complex: homodimer; heterodimer (see PIR:1C;Superfamily: platelet-derived growth facts C;Keywords: growth factor; mitogen
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A;Title: The 5' untranslated sequence of the c-s A;Reference number: I57635; MUID:88094398
A;Accession: I57635
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A;Title: Mistranslation of a TGA termination codon as t A;Reference number: S56115; MUID:95351967
A;Accession: S56115
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A; Residues: 'M',82-241 <COO>
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A; Residues: 1-241 < RAT>
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A; Residues: 1-20 < RAO2>
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eitz, M.S.
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R;Bejcek, B.E.; Li, D.Y.; Deuel, T.F.

Nucleic Acids Res. 18, 680, 1990
A;Title: Nuclectide sequence of a cDNA clone of Xenopus platelet-A;Reference number: S08220; MUID:90175018
A;Reference number: S08220; MUID:90175018
A;Accession: S08220
A;Status: translation not shown
A;Molecule type: mRNA
A;Residues: 1-215 <BEJ>
A;Cross-references: EMBL:X17545; NID:964973; PIDN:CAA35583.1; PID C;Superfamily: platelet-derived growth factor C;Keywords: alternative splicing; growth factor C;Keywords: alternative splicing; growth factor F;1-22/Domain: signal sequence #status predicted <FRO>
F;23-91/Domain: propeptide #status predicted <FRO>
F;23-91/Domain: propeptide #status predicted cracy
                                                                                                                                                                                                                                                                   platelet-derived growth factor A chain short form precursor - African clawed C.Species: Xenopus laevis (African clawed frog)
C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 16-Jul-1999
C;Accession: I51551
R;Mercola, M.; Melton, D.A.; Stiles, C.D.
Science 241, 1223-1225, 1988
A;Title: Platelet-derived growth factor A chain is maternally encoded in Xeno A;Reference number: I51550; MUID:88321676
A;Accession: I51551
A;Scatus: preliminary; translated from GB/EMBL/DDBJ
A.SCIENCE - TENTAL TERMANDERIVED A CONTROL OF THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE PROPERTY AND THE
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A;Residues: 1-200 <MER>
A;Cross-references: GB:M23238; NID:9214650; PIDN:AAA49928.1;
C;Superfamily: platelet-derived growth factor
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                         Score 119; DB
Pred. No. 0.00
18; Mismatches
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Pred. No. 0.00026;
0; Mismatches 38;
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7; Mismatches 29;
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A;Reference number: A48851; MUID:93191115
A;Accession: A48851
A;Accession: Catalogue and Accession: A48851
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Residues: 1-196 <KATY
A;Cross-references: GB.D10106; NID:g220839; PIDN:BAA00987.1;
A;Experimental source: brain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                platelet-derived growth factor chain A precursor (version 2) - rat C;Species: Rattus norvegicus (Norway rat) C;Species: Pobec-1993 #sequence_revision 18-Nov-1994 #text_change 16-Jul-1999 C;Date: 19-Dec-1993 #sequence_revision 18-Nov-1994 #text_change 16-Jul-1999 C;Accession: A48851; IS1891 R;Katayose, D; Ohe, M.; Yamauchi, K.; Ogata, M.; Shirato, K.; Fujita, H.; Shibahara, Am. J. Physiol. 264, L100-L106, 1993 Am. J. Physiol. 264, L100-L106, 1993 Am. J. Physiol. 264, L100-L106, 1993 Am. J. Title: Increased expression of PDGF A- and B-chain genes in rat lungs with hypoxic A;Title: Thoreased expression of PDGF A- and B-chain genes in rat lungs with hypoxic A;Title: Thoreased expression of PDGF A- and B-chain genes in rat lungs with hypoxic A;Title: Thoreased expression of PDGF A- and B-chain genes in rat lungs with hypoxic A;Title: Thoreased expression of PDGF A- and B-chain genes in rat lungs with hypoxic A;Title: Thoreased expression of PDGF A- and B-chain genes in rat lungs with hypoxic A;Title: Thoreased expression of PDGF A- and B-chain genes in rat lungs with hypoxic A;Title: Thoreased expression of PDGF A- and B-chain genes in rat lungs with hypoxic A;Title: Thoreased expression of PDGF A- and B-chain genes in rat lungs with hypoxic A;Title: Thoreased expression of PDGF A- and B-chain genes in rat lungs with hypoxic A;Title: Thoreased expression of PDGF A- and B-chain genes in rat lungs with hypoxic A;Title: Thoreased expression of PDGF A- and B-chain genes in rat lungs with hypoxic A;Title: Thoreased expression of PDGF A- and B-chain genes in rat lungs with hypoxic A;Title: Thoreased expression of PDGF A- and B-chain genes in rat lungs with hypoxic A;Title: Thoreased expression of PDGF A- and B-chain genes in rat lungs with hypoxic A;Title: Thoreased expression of PDGF A- and B-chain genes in rat lungs with hypoxic A;Title: Thoreased expression of PDGF A- and B-chain genes in rat lungs with hypoxic A;Title: Thoreased expression of PDGF A- and B-chain genes in rat lungs with hypoxic A;Title: Thoreased expre
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Note: sequence extracted from C; Superfamily: platelet-derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references: GB:M23237; NID:g214648; PIDN:AAA49927.1; PID:g214649 C;Superfamily: platelet-derived growth factor
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                                                                                    118 EHSQCECRPKKKDSAVKPD 136
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              158 AKVEYVRKKPKLKEVLVRLEEHLECTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              102 LMIRY----PSSQLGEMSLEEHSQCEC
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                                                                                                                                                                                                                                      TVAKQLV-PSCYTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRY----PSSQLGEMSLE 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AKVEYVRKKPKLKEVLVRLEEHLECTC
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EHLECAC---
                                                                                                                                                                         TSANFLIWPPCVEVKRCTGCCNTSSVKCQPSRVHHRSVKVAKVEYVRKKPKLKEVQVRLE:172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATCQPREVV--VPLTVELMGTVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI 101
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; Pred. No. 0.0003;
18; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                Score 117.5;
Pred. No. 0.00
14; Mismatches
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A;Gene: sis
C;Superfamily: platelet-derived growth factor
C;Superfamily: platelet-derived growth factor; platelet; proto-
C;Keywords: glycoprotein; growth factor; platelet cSIG>
F;1-20/Domain: signal sequence #status predicted <PRO>
F;21-81/Domain: propeptide #status predicted <PRO>
F:82-190/Product: platelet-derived growth factor chain B
F;159-163/Region: receptor binding #status predicted
F;63/Binding site: carbohydrate (Asn) (covalent) #status
                                                                                                                                                                                                                                                                                                                                        platelet-derived growth factor chain B precursor (sis) - Nalternate names: PDGF-related transforming protein c;Species: Mus musculus (house mouse) C;Date: 31-Dec-1992 #sequence_revision 31-Mar-1993 #text_C;Accession: A39073 R;Bonthron, D.T.; Sultan, P.; Collins, T. Genomics 10, 287-292, 1991 A;Reference number: A39073; MUID:91257844 A;Accession: A39073; MUID:91257844
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platelet-derived growth factor chain B precursor - rat (fragment)

C;Species: Rattus norvegicus (Norway rat)

C;Date: 07-Apr-1994 #sequence_revision 07-Apr-1994 #text_change 16-Jul-1999

C;Accession: $25097; $33765; I52866

R;Herren, B.; Weyer, K.A.; Rouge, M.; Loetscher, P.; Pech, M.

submitted to the EMBL Data Library, July 1992
                                                                                                                                                                                                                                   A;Cross-references: GB:M64849; GB:M55394; NID:g192818; PIDN:AAA37485.1; PID:g192820 C;Genetics:
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A: Residues: 74-182 < RES>
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A; Accession: I52866
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R;Lindner, V.; Giachelli, C.M.; Schwartz, S.M.; Reidy, M.A.
Circ. Res. 76, 951-957, 1995
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A; Residues: 1-241 <BON>
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C;Keywords: growth factor; mitogen; platelet
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A; Residues: 89-172 <HER2>
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A; Residues: 1-225 < HEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     45 ATCQPREVVVPLTVELMG-TVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL 102
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Pred. No. 0.00082;
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-ETVVTP 178
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                                                                                                                                                  proto-oncogene;
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                                                                  #status predicted
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                                                                                                                                                  transforming protein
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PDGF-related transforming protein (v-si
C;Species: simian sarcoma virus
C;Date: 28-Sep-1987 #sequence_revision
                                                                                                                                                                  F;1-17/Domain: secretory signal sequence #status predicted <SIC> F;18-370/Product: spinal cord-derived growth factor-B #status predicted <MAT> F;52-170/Region: CUB domain #status predicted F;272-370/Region: homologous to platelet-derived growth factor/vascular endothelial F;272-370/Region: conserved motif #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Hamada, T.; Ui-Tei, K.; Imaki, J.; Miyata, Y.
Biochem. Biophys. Res. Commun. 280, 733-737, 2001
Biochem. Biophys. Res. Commun. 280, 733-737, 2001
A;Title: Molecular cloning of SCDGF-B, a novel growth factor homologous
A;Reference number: JC7591; MUID:21092670; PMID:11162582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C; Accession: JC7592
C; Accession: JC7592
R; Hamada, T; Ui-Tei, K; Imaki, J; Miyata, Y, R; Hamada, T; Ni-Tei, K; Imaki, J; Miyata, Y, R; Hamada, T; Ni-Tei, K; Imaki, J; Miyata, Y, R; Hamada, T; Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Imaki, J; Miyata, Y, Ni-Tei, K; Miyata, Y, Ni-Tei, Miyata, Y, Ni-Tei, Miyata, Y, Ni-Tei, Miyata, Y, Ni-Tei, Miyata, Y, Ni-Tei, Miyata, Y, Ni-Tei, Miyata, Y, Ni-Tei, Miyata, Y, Ni-Tei, Miyata, Y, Ni-Tei, Miyata, Y, Ni-Tei, Miyata, Y, Ni-Tei, Miyata, Y, Ni-Tei, Miyata, Y, Ni-Tei, Miyata, Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               spinal cord-derived growth factor-B precursor - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 30-Jun-2001 #sequence_revision 30-Jun-2001 #text_change 24-Aug-2001
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A;Molecule type: protein
A;Residues: 1-271 <HAN>
A;Residues: 1-271 <HAN>
C-Terminal Coding Region of the v-sis Gene: Dimerization
C;Superfamily: platelet-derived growth factor
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Mol. Cell. Biol. 6, 1304-1314, 1986
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C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: mRNA
A; Residues: 1-370 <HAM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Contents: Fetal brain A; Accession: JC7592
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Best Loc
Matches
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              103 MIR-----YPSSQLGEMSLEEHSQCEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    125 AECKTRTEVGEISRRLIDRTNANFLVWPPCVEVQRCSGCCNNRNVQCRPT----QVQLRPV 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        152 QVRKIEIVRKKPIFKKATVTLEDHLACKC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              103 MIR---
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                             Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AECKTRTEVFQISRNLIDRTNANFLVWPPCVEVQRCSGCCNNRNVQCRAS----QVQMRPV 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCQPREVVVPLTVELMG-TVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL
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30; Conser
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                                     13.3%;
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Pred. No. 0.0021;
17; Mismatches 30
                             Score 95.5;
Pred. No. 0.
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Pred. No. 0.
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                                 .092;
                                                                  DB 2;
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                                                                      Length 370;
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Conservative

18;

Indels

27;

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A; Start codon: (C; Superfamily: | F; 4-68/Domain: (
                                                                                                                                                                 hypothetical protein B1937_F2_56 - Mycobacterium leprae C;Species: Mycobacterium leprae C;Date: 19-Mar-1997 #sequence_revision 25-Apr-1997 #text C;Accession: S72599
R;Smith, D.R.; Robison, K. submitted to the EMBL Data Library, November 1993
A;Reference number: S72580
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F;272-370/Region: homologous to platelet-derived growth factor/vascular endothelial grow F;294-308/Region: conserved motif #status predicted
                                                                                           A; Residues: 1-378 <SI
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                                                          C; Genetics:
                                                                         A; Cross-references: EMBL: U00016; NID: g466961; PIDN: AAA17167.1;
                                                                                                                              A; Status: preliminary
                                                                                                                                                     A; Accession: S72599
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A:Title: Molecular cloning of SCDGF-B, a novel growth factor homologous to SCDGF/PDGF-C/A;Reference number: JC7591; MUID:21092870; PMID:11162582
A;Accession: JC7591
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C;Spec
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JC7591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Gene: scdgf-B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-370 <HAM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R; Hamada,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Date: 30-Jun-2001 #sequence_revision 30-Jun-2001 #text_change 24-Aug-2001
C;Accession: JC7591
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;Species: Homo sapiens (man)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                368
                                                                                                                                                                                                                                                                                                                                                                                                                                                          308
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cord-derived growth factor-B
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                                                                                                                                                                                                                                                                                                                                                                                                                   PKK 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCPDDGLECVPTGQHQVRM--QILMI-----RYPSSQLGEMSLEEHSQCEC----R 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HSRK--SKVDLDRLNDDAKRYSCTPRNYSVNIREELKLANVV--FFPRCLLVQRCGGNCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  T.; Ui-Tei, K.; Imaki,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PR 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGTVNWRSCTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTMALVDIQLDHHERCDCICSSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTLNWKSCTCSSGKTVKKYHEVLKFEPGHFKRRGKAKNMALVDIQLDHHERCDCICSSRP 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DGL---ECVPTGQHQVRMQILMIRY----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HERK--SKYDLDRLNDDYKRYSCTPRNHSVNLREELKLTNA-VFFPRCLLVQRCGGNCGC 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HQRKVVSWIDV-----YTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                370
                                        GTG
heat shock protein dnaJ; dnaJ amino-terminal homology dnaJ amino-terminal homology <DNJ>
                                                                                         <SMI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11.9%;
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80, 733-737, 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 85.5; DB Pred. No. 0.86;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        precursor -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 370;
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                                                                        PID: g466981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      367
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Nakazaki, N.; Shimpo, S.; Suglmoto, Pr., Amerikazaki, N.; Shimpo, S.; Suglmoto, Pr., All Res. 8, 205-213, 2001

DNA Res. 8, 205-213, 2001

A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium

A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium

A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium

A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium
A; Experimental source: strain PCC C; Genetics:
                                                                                                                                                                                              C;Accession: AI2071
C;Accession: AI2071
R;Kaneko, T.; Nakamura, Y.; Wolk, C.P.; Kuritz, T.;
                                                            A; Molecule type: DNA
A; Residues: 1-452 <KUR>
                                                                                                                                                                                                                                                                                                                                                     RESULT
AI2071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
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C;Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #text_change 20-Jun-2000
C;Accession: T31561
                                                                                                                                                                                                                                                               A;Note: Anabaena sp. (strain PCC 7120)
C;Date: 14-Dec-2001 #sequence_revision
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C; Superfamily: gliadin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          submitted to the EMBL Data A; Reference number: 221045 A; Accession: T31561
                                          A;Cross-references: GB:BA000019; PIDN:BAB73826.1;
                                                                                                    A;Status: preliminary
                                                                                                                                                                                                                                                                                                        hypothetical protein all2127 [imported] - Anabaena sp.
C;Species: Anabaena sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Experimental source: clone Y105C5A C; Genetics:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Residues: 1-335 <WIL>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Status: preliminary; translated from GB/EMBL/DDBJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         hypothetical protein Y105C5A.d - Caenorhabditis elegans
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Best Local Similarity
Matches 27; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 PVAPAPVQCQPSCMPVCEQSCVAPAPQVISLNLEVVPQCQQQCAPQCQQPSAPQCQQCQN
                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                170 VQRSLLGQMVTARPCPTCRGVGVVIPDPCCQCVGDGRVRARREI-TVKIPSGVGDGMRVR 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           81 CCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHSQC--ECRPKKKDSA 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26 PDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSC-----VTVQRCGG 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29 PGHQRKVVSWIDVYTRATCQPREVVV-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                            37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LAAQGEVGP 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EHSQCECRP 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VAKQLVPSCVTVQRCGGC-----CPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLE 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PGSDSLLPMWLDLEECATGVTKQVTVDTAVLCDRCQGKGTNGDSAPIPCDTCGGRGEVQT 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30;
                                                                                                                                                                                                                                                                                                                                                                                                                                      -QYAPVCQQQCAPQCTLPSAPACQQCQTSCQQTQQCQQQCIPQCQQPA 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 77.5; D
Pred. No. 4.7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 78;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    September 1999
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                                                                                                                                                                                                                                                                   is a synonym of Nostoc sp. strain PC 14-Dec-2001 #text_change 11-Jan-2002
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4.7;
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                                        PID:g17131218; GSPDB:GN00179
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                                                                                                                                                                                                                               Sasamoto,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 378
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                                                                                                                                                                                                                                                                                                                                 (strain PCC 7120)
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                                                                                                                                                                                                         S.; Watanabe,
, M.; Yasuda,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11;
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                                                                                                                                                                                                                                                                                           strain PCC
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probable iron-sulfur protein YPO2245 [imported] - Yersinia pestis (strain CO92) C;Species: Yersinia pestis
C;Species: Yersinia pestis
C;Date: 02-Nov-2001 #sequence_revision 02-Nov-2001 #text_change 09-Nov-2001
C;Accession: AG0273
R;Parkhill, J: Wren, B.W.; Thomson, N.R.; Titball, R.W.; Holden, M.T.G.; Prentice, M.B. deno-Tarraga, A.M.; Chillingworth, T.; Cronin, A.; Davies, R.M.; Davis, P.; Dougan, G.; il, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.; Whitehead, S.; Barrell, Nature 413, 523-527, 2001
A;Title: Genome sequence of Yersinia pestis, the causative agent of plague.
A;Reference number: AB0001; MUID:21470413; PMID:11586360
A;Accession: AG0273
A:Status: Not in the causative agent of plague.
A;Accession: AG0273
A:Status: Not in the causative agent of plague.
A;Accession: AG0273
A:Status: Not in the causative agent of plague.
A;Accession: AG0273
A:Status: Not in the causative agent of plague.
A:Accession: AG0273
A:Status: Not in the causative agent of plague.
A:Accession: AG0273
A:Status: Not in the causative agent of plague.
A:Accession: AG0273
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731560
rypothetical protein Y105C5A.c - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #tex: C;Accession: T31560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;McMurray, A.
submitted to the EMBL Data Library, September 1999
A;Reference number: Z21045.
A;Accession: T31560
A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                  A; Gene: YPO2245
C; Superfamily:
                                                                                                                                                                                  A:Molecule type: DNA
A;Residues: 1-188 <KUR>
A;Cross-references: GB:AL590842;
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AG0273
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C;Superfamily: gliadin
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    Query Match
Best Local Similarity
"hes 25; Conserv?
                                                                                                                                                                                                                                                A; Status: preliminary
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Experimental source: C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: EMBL:AL117193; PIDN:CAB54983.1; CESP:Y105C5A.c A;Experimental source: clone Y105C5A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-335 <WIL>
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                                                                                                                                                                     C; Genetics:
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26 PDAPGHORKVVSWIDVYTRATCOPREVVVPLTVELMGTVAKQLVPSC-----VTVQRCGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       39
                                                                                                                                                YP02245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHSQC--ECRPKKKDSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LSGKQMPGNRERLASFND------KVRQGSYPCS-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PKSWLEGIEPCPSAKHNIE-QRLLLTYALSRIEEAEANQEA 448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PD----DGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHS
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                                                                                                                          conserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -QYAPVCQQQCAPQCTFPSAPACQQCQTSCQQTQQCQQQCIPQCQQPA
                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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                                                                                                                        hypothetical protein HI1684;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10.5%;
                                        10.4%;
27.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18; Mismatches
                       13;
                   Score 75; DB
Pred. No. 4.8;
13; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 75.5; DB Pred. No. 7.4;
                                                                                                                                                                                      PIDN:CAC91051.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 76; DB Pred. No. 8.7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                            DB 2; Length 188;
                                        .8
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                                                                                                                                                                                  PID:g15980245;
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                     40;
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                                                                                                                        ferredoxin
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                     Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11;
                     12;
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                                                                                                                                                                                      GSPDB: GN00175
                                                                                                                        2[4Fe-4S]
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                   Gaps
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                                                                                                                        homology
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                     4;
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                                                                                                                                                               A; Reference number: Z21092
A; Accession: T31840
                                                                                                                                                                                                     R;Bradsnaw, n.
submitted to the EMBL Data Library,
mhe sequence of C. e.
                                                                                                                                                                                                                                                                hypothetical protein T05B4.4 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #tC;Accession: T31B40
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C; Superfamily: gliadin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Date: 29-Oct-1999 #sequence_revision
C;Accession: T31559; T31562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              hypothetical protein Y105C5A.b - N; Alternate names: Y105C5A.e
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A; Map
                   C;Genetics:
A;Gene: CESP:T05B4.4
                                                            A; Experimental source:
                                                                             A; Cross-references:
                                                                                                     A; Molecule type: DNA
A; Residues: 1-293 <BRA>
                                                                                                                                       A; Status: preliminary; translated from GB/EMBL/DDB.
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Best Local S
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position:
                                                                                                                                                                                                                                                                                                                                                                                                                                     228 QPA
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30; Conserv
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                                                            EMBL:AF016445; PIDN:AAC69056.1; GSPDB:GN00023; CESP:T05B4.4 se: strain Bristol N2; clone T05B4
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T05B4

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A;Cross-references: EMBL:AL117193; PIDN:CAB54982.1; CESP:Y105C5A.b A;Experimental source: clone Y105C5A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Status: preliminary; translated from GB/EMBL/DDBJ
172 APQCQQCQNTCQ----QYAPVCQQQCTPQCTLPSAPACQQCQTSCQQTQQCQQQCIPQCQ
                                                                                                                                                  19 AQAPVS-QPDA-PGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSC---- 72
                                                  -VTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHSQC--ECRPKKK 129
                                                                                                     APAPVQCQPSCMPACEQSCVA------PAPQVISLNLEVVPQCQQQCAPQCQQPS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQ-----PREVVVPLTVELM
                                                                                                                                                                                                                               10.4%; Score 75; DB 2; 24.4%; Pred. No. 8.3;
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                                                                                                                                                                                                          Mismatches
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                                                                                                                                                                                                                                                             Length 335;
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                                                                                                                                                                                                       Gaps
  227
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A; Introns:

20/1;

35/2;

78/3; 162/1

A; Map position:

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protein zC84.1 [Imported] - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 10-May-2001 #sequence_revision 10-May-2001 #text_change 10-May-2001
C;Accession: E88550
R;anonymous, The C. elegans Sequencing Consortium.
Science 282, 2012-2018, 1998
A;Title: Genome sequence of the nematode C. elegans: a platform for investigating biolog
A;Reference number: A75000; MUID:99069613; PMID:9851916
A;Note: see websites genome.wustl.edu/gsc/C_elegans/ and www_sanger.ac.uk/Projects/C_ele
A;Note: published errata appeared in Science 283, 35, 1999; Science 283, 2103, 1999; and
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-1416 <STO>
A;Cross-references: GB:chr_III; PIDN:CAA79569.1; PID:g3881446; GSPDB:GN00021; CESP:ZC84.
A;Note: similar to Serine protease inhibitor, Kunitz type
C;Genetics:
A;Gene: ZC84.1
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E88550
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A;Experimental source: strain H37Rv
C;Genetics:
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C;Superfamily: Mycobacterium tuberculosis hypothetical protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Authors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G. A; Title: Deciphering the biology of Mycobacterium tuberculosis from the comple A; Reference number: A70500; MUID:98295987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R;Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.; Connor, R.; Davies, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamlin, N.; Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, Nature 393, 537-544, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         hypothetical protein Rv3776 - Mycobacterium tuberculosis (strain H37RV) C;Speckes: Mycobacterium tuberculosis C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 20-Jun-2000 C;Accession: D70695
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  186 AGTAALWGRLFATDAAMLDKRL----TQLAHGVCDDD 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 MGTVA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            73
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVY-----TRATCQPREVVVPLTVEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VTVQRCGGCCPDDGLECVP 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AACQALYAAPDTTAGYPSAGTDAERPLNCYTTATATPAAIVQDMKTAALETCAK-----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -----KQLVPSCVTVQRCGGCCPDD 85
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11;
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Pred. No. 15;
11; Mismatches
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Pred. No. 9.1;
6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2
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A;Introns: 14/1; 32/3; 57/1; 192/3; 277/1; 398/1; 439/1; 474/1; 497/1; 813/1 493/1; 2555/1; 2720/1; 2739/3; 2819/1
C;Superfamily: animal Kunitz-type proteinase inhibitor homology
F;220-274/Domain: animal Kunitz-type proteinase inhibitor homology <BPI1>
F;343-395/Domain: animal Kunitz-type proteinase inhibitor homology <BPI2>
F;442-492/Domain: animal Kunitz-type proteinase inhibitor homology <BPI3>
F;446-598/Domain: animal Kunitz-type proteinase inhibitor homology <BPI4>
F;654-706/Domain: animal Kunitz-type proteinase inhibitor homology <BPI6>
F;1662-1716/Domain: animal Kunitz-type proteinase inhibitor homology <BPI6>
F;1652-1716/Domain: animal Kunitz-type proteinase inhibitor homology <BPI7>
F;1845-1895/Domain: animal Kunitz-type proteinase inhibitor homology <BPI7>
F;1845-1895/Domain: animal Kunitz-type proteinase inhibitor homology <BPI7>
F;1952-2004/Domain: animal Kunitz-type proteinase inhibitor homology <BPI9>
F;2997-2152/Domain: animal Kunitz-type proteinase inhibitor homology <BPI9>
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A; Residues: 1-2844 < THO>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hypothetical protein ZC84.1 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Cross-references: EMBL: Z19157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Status: preliminary
                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 40; Conser
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1149 NKAKLGEACLTVRQCQENSGCIEGSCECKKGFIEKAGKCMTPVEKKSAV
                                                                                         1089
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                                                                                                                                                                                1045 PEKCVVGQSNCPRGFACQKSLAGHHVCCTVRKV----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18 PAQAPVSQPDAP-----GHQ-----RKVVSWIDVYTRATCQPREVVVPLTVELMG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                           PSSQLGEMSL----EEHS----QCECR-----
                                                                                         ECHAQVGPGSECLANEQCTGGSVCEDAKCECRPPLKAVGGFCQEEIQCSSNQVLHNGLCH 1148
                                                                                                                                                                                                                              PAQAPVSQPDAP-----GHQ-----RKVVSWIDVYTRATCQPREVVVPLTVELMG
                                                                                                                                     TVAKQLVP--SCVTVQRC--GGCCPDDGLECVPT----
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23.7%;
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                                                                                                                                                                                                                                                                            Score 73.5; DI
Pred. No. 83;
21; Mismatches
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Pred. No. 44;
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                                           ----PKKKDSAV
                                                                                                                                                                                     ----ACESNEVIIE-----G
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                                                                                                                                     -GQHQVRM---QILM--IRY 106
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hypothetical protein F35E8.10 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 15-Oct-1999 #sequence\_revision 15-Oct-1999 #text\_change 26-May-2000 C;Accession: T21785; T21791

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A;Cross-references: EMBL:Z81529; PIDN:CAB04291.1; GSPDB:GN00023; CESP:F35E8.10
A;Experimental source: clone F35E8
A;Accession: T21791
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-249 <MIZ>
A;Cross-references: EMBL:Z81529; PIDN:CAB04297.1; GSPDB:GN00023; CESP:F35E8.13
A;Experimental source: clone F35E8
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;Gardner, A.
submitted to the EMBL Data Library, November 1996
A;Reference number: 219472
A;Accession: T21785
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-249 WILL
A;Residues: 1-249 WILL
                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Gene: CESP:F35E8.10; CESP:F35E8.13
A;Map position: 5
A;Introns: 33/3; 121/1
C;Superfamily: Caenorhabditis elegans hypothetical protein C49G7.3
Search completed: September 10, 2002, 02:51:08 Job time: 3576 sec
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                                                                                                                             108
                                                                                                                                                       81 CCPDDGLECVPTGQHQVRMQILMIRYPSSQLGEMSLEEHSQC 122
                                                                                                                                                                                                                      58 APVAADGYPSPGRDQQRPLACYTTATATPAAV-----VQDMKNAAQSTCP-----RTCGL 107
                                                                                                                                                                                                                                                                     21 APVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGG 80
                                                                                                                        CCQTSGYNC-PN----SQC
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Maximum
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Maximum Match 99%
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Perfect score:
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       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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Best Local Similarity
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P49766; Q64290;
01-OCT-1996 (Rel. 34, 0
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01-MAR-2002 (Rel. 41, 1
Vascular endothelial g)
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Mitogen;
                                                               SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia; NCBI_TaxID=10090;
                            Olofsson
                                                                                                                                 splice isoform.
                                                                                                                                                                                    Eriksson
                                                                                                                                                                                                                        MEDLINE-96325041;
                                                                                                                                                                                                                                                                                           Biochem.
                                                                                                                                                                                                                                                                                                        Weber G., Hayward "Characterization
                                                                                                                                                                                                                                                                                                                                         Townson
                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM
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                                                 MEDLINE=96197355;
                                                                                                                                                   endothelial
                                                                                                                                                                                                        Olofsson
                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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of the murine VEGF-related
Res. Commun. 220:922-928(19
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                                                 PubMed=8637916;
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MISSING (IN ISOFORM VEGF-B167).
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INTERCHAIN (BY SIMILARITY).
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              growth
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                                                                                                                                                                                                                                                                                                                                         Nordenskjoeld
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              factor
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Best Local Similarity
Matches 121; Conser
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EMBL; U43837; I
EMBL; U52820; I
EMBL; U48800; I
HSSP; P15692;
                                                                                                          VARSPLIC
SEQUENCE
                                                                                                                                                                     SIGNAL
CHAIN
DISULFID
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VARSPLIC
                                                                                                                                                                                                                                                                                                                 InterPro; IPR000072; PDGF. Pfam; PF00341; PDGF; 1. ProDom; PD001629; PDGF; 1. SMART; SM00141; PDGF; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             conduction defect.";
Circulation 104:358-364(2001).
-!- FUNCTION: Growth factor for
                                                                                                                                                                                                                                                                            PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
Mitogen; Growth factor; Glyc
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or send an
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Eriksson U.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=21349816; PubMed=11457758; Aase K., von Euler G., Li X., Pont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           endothelial cells.";
                                                                                                                                                                                                                                                                    Alternative
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                       \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBCELLULAR LOCATION: Secreted but remains associated to cells or to the extracellular matrix unless released by heparin.

ALTERNATIVE PRODUCTS: At least 2 isoforms; VEGF-B186 (shown here) and VEGF-B167; are produced by alternative splicing.

TISSUE SPECIFICITY: Abundantly expressed in heart, brain, kidney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          or for angiogenesis in adults. 
 {\tt SUBUNIT: Homodimer; disulfide-linked.} Can also with vegf.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 European
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and skeletal muscle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              development of the cardiovascular system either during development
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        heparin and neuropilin-1 whereas the binding to neuropi
VEGF-B186 is regulated by proteolysis. Vegf-b seems to
for normal heart function in adult but is not required
             MSPLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SWISS-PROT entry is copyright. It is produced through een the Swiss Institute of Bioinformatics and the EMEUROPEAN BIOINFORMATICS INSTITUTE. There are no restriby non-profit institutions as long as its content
 MSPLLRRLLLVALLQLARTQAPVSQFDGPSHQKKVVPWIDVYARATCQPREVVVPLSMEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                non-profit institutions as long
and this statement is not removed.
requires a license agreement (See
an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VEGF-B186 is O-glycosylated.
LARITY: BELONGS TO THE PDGF/V
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207 /
                                                                                                                                                                                                                                                                    splicing;
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                                                                                                                                                                                                                                                                                                                                                                                     ; AAC52932.1; -.; AAC52553.1; -.; AAC52823.1; -.; AAC52823.1; -.; AAB06273.1; -.
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1 POTENTIAL.
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1 whereas the binding to
by proteolysis. Vegf-b s
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Pred.
5; Mis
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MISSING (IN ISOFORM VEGF-B167),
4817A5E96F6960C2 CRC64;
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INTERCHAIN (BY SIMILARITY).
RVALPHHRDQPRSVPGMSSTPKASSPADIIHDTPAPGSSAR
LAPSAVNALTP -> SPRILCPPCTQRRQRPDPRTCRCRCR
                                                                                                                                                                                                        BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                              VASCULAR ENDOTHELIAL BY SIMILARITY.
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                                                                                                                                             RRRFLHCQGRGLELNPDTCRCRKPRK (IN
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ismatches
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Alitalo
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035485; (
                                                DISULFID VARSPLIC
                                                                               DISULFID DISULFID
                                                                                                                                                                                            SMART; SP
PROSITE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                   This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Weil J., Eschenhagen T., Mittmann C., Scholz H.;
Submitted (AUG-1997) to the EMBL/GenBank/DBJ databases.
-I-FUNCTION: Growth factor for endothelial cells. VEGF-B167 bind
heparin and neuropilin-1 whereas the binding to neuropilin-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PARTIAL SEQUENCE FROM N.A. (ISOFORM VEGF-B186). STRAIN-Sprague-Dawley; TISSUE-Placenta; Mandriota S.J., Pepper M.S.; submitted (NOV-1997) to the EMBL/GenBank/DDBJ d
                                                                                                                                                                                                                                                                       EMBL; AF022952; AAB
HSSP; P15692; 1VPP.
                                                                                                                                                                                                                                                                                                                                                                                        use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE-Heart;
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Mammalia; Eutheria;
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   CONFLICT
                                                                                                               DISULFID
                                                                                                                                 NON_TER
                                                                                                                                             Multigene
                                                                                                                                                            Mitogen;
                                                                                                                                                                              PROSITE;
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                                                                                                                                                                                                                                                                                                         EMBL;
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VEGFB OR VRF.
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                                                                                                                                                                                                                                                                                                                                                                                    European Bioinformatics Institute. The by non-profit institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALTERNATIVE PRODUCTS: At least 2 isoforms; VEGF-B186 (shown he and VEGF-B167; are produced by alternative splicing. SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VEGF-B186 is regulated by proteolysis SUBUNIT: Homodimer; disulfide linked. with vegf (By similarity).
SUBCELLULAR LOCATION: Secreted but rem
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBCELLULAR LOCATION: Secreted but to the extracellular matrix unless
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SWISS-PROT entry is copyright. It is produced through sen the Swiss Institute of Bioinformatics and the EN
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                                                                                                                                                                                                           ; PD001629; PDGF; 1.
SM00141; PDGF; 1.
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Da; Chordata;
La; Rodentia;
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                                                                                                                                                            Heparin-binding; Alternative
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              BY SIMILARITY.
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INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
RVAIPHHRPOPRSVLSWOSAPGASSPADII -> SPRTIRCTPRRVRIPDRTICKORRRREFLHCQGRGLELNPDTC (IN ISOFORM VEGF-B167).
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Sciurognathi; Muridae;
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Can also form h
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAR-2002 (Rel. 41, Created)
01-MAR-2002 (Rel. 41, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
Vascular endothelial growth factor A precursor (VEGF-A) (Vascular permeability factor) (VPF)
                                                                                                                            PROSITE;
                                                                                                                                                                                                                                                                                                                                                      This
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
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                                                                               SIGNAL
                                                                                                                                                              SMART; SM00141; PDGF; 1.
                                                                                                                                                                             ProDom;
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Pfam; PF00341; PDGF; 1.
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                                                                                                                                                                                                                                                                          entities requires a
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                                                                                                                                                                                                                                                                                                                       the European Bioinformatics Institute.
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Mammalia; Eutheria; Perissodactyla; Equidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VEGF OR VEGFA.
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                                                                                                                                                                                                                                                                                                                                                                                                                 with PIGF (By similarity).
SUBCELLULAR LOCATION: Secret
to the extracellular matrix
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SUBUNIT: Homodimer; disulfide-linked.
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                                                                                                               Angiogenesis;
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                                                                                                   This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Entrepean Bioinformatics Institute. There are no restructed by non-profit institutions as long as its content use by non-profit institutions are long as its content modified and this statement is not removed. Usage by ancestation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      rck cloning of gene.":
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                        EMBL;
                                                               or send an email to license@isb-sib.ch).
                                                                                   entities requires a license agreement
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Lee T., Canty J.M.
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Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-FEB-1996 (Rel. 33, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
Vascular endothelial growth factor A precursor (VEGF-A) (Vascular permeability factor) (VPF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (NOV-2000)
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SIMILARITY: BELONGS TO THE
                                                                                                                                                                                                                                                                                                     with PIGF (By similarity).
SUBCELLULAR LOCATION: Secreted
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SUBUNIT: Homodimer; disulfide-linked. Also found
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     FUNCTION: Growth factor a endothelial cell growth.
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45.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     factor active in angiogenesis, vasculogenesis growth. It induces endothelial cell
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N-LINKED (GLCNAC. . .) (PO;
87E9E161439E5F87 CRC64;
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                                                                                                                                                                                                                                   PDGF/VEGF FAMILY OF GROWTH FACTORS
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                                                                              (See http://www.isb-sib.
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RESULT 6
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01-MAR-2002 (Rel. 41, Created)
01-MAR-2002 (Rel. 41, Last sequence up
01-MAR-2002 (Rel. 41, Last annotation
Vascular endothelial growth factor A p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             proDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1;
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
Mitogen; Angiogenesis; Growth factor;
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                                                                                                                                                           Submitted (MAY-1998)
-1- FUNCTION: Growth
                                                                                                                                                                                TISSUE=Decidua, an
Yi X.J., Chow P.H.
                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                            NCBI_TaxID=10036
                                                                                                                                                                                                                                                    Mammalia;
                                                                                                                                                                                                                                                             Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                         Mesocricetus auratus (Golden hamster).
                                                                                                                                                                                                                                                                                   VEGF OR VEGFA.
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Pfam; PF00341; PDGF;
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                                Similarity).
SIMILARITY: BELONGS TO
                                                                                       heparin (By similarity).
SUBUNIT: Homodimer; disulfide-linked. Also
                                                                                                           FUNCTION: Growth factor active in angiogenesis, vasculogenesis endothelial cell growth. It induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis, and induces permeabilization of blood vessels. It binds to the VEGFRI/Flt-1 and VEGFR2/Kdr receptors and to heparan sulfate an
                                                                 with PIGF (By similarity).
SUBCELLULAR LOCATION: Secr
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een the Swiss In:
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                                                       the extracellular
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 try is copy Institute
                                                                                                                                                                                            Embryo;
                                                                                                                                                                                                                                                             Chordata;
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45.1%;
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                                 THE PDGF/VEGF FAMILY OF GROWTH FACTORS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 270.5;
Pred. No. 7.4e
22; Mismatches
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BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
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INTERCHAIN (BY SIMILARITY).
INTERCHAIN (GY SIMILARITY).
N-LINKED (GLCNAC. . .) (POTT -> A (IN REF. 2).
; 04D40B8D7913047F CRC64;
                                                                                                                                                                                                                                               Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Cricetinae;
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tion update)
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          It is
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7.4e-21;
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d by heparin
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                                                                                                                                                                                                                                                                                                           (VEGF-A) (Vascular
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Best Local :
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SIGNAL 1 26 BY SIMILARITY.

CHAIN 27 190 VASCULAR ENDOTHELIAL GROUSULFID 51 93 BY SIMILARITY.

DISULFID 86 129 BY SIMILARITY.

DISULFID 86 129 BY SIMILARITY.

DISULFID 86 129 BY SIMILARITY.

DISULFID 86 129 BY SIMILARITY.

CARBOHYD 100 100 N-LINKED (GLCNAC. .)

SEQUENCE 190 AA; 22276 MW; F00C5A8EA79A465F CRC66
                                                                                                                                                                                                                                                                    VEGA_RAT STANDARD; PRT; 214 AA. P16612; Q9QXG7; Q9QXG6; Q9JKX7; 01-AUG-1990 (Rel. 15, Created) 01-MAR-2002 (Rel. 41, Last sequence update) 01-MAR-2002 (Rel. 41, Last annotation update) Vascular endothelial growth factor A precursor permeability factor) (VPF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF-1; 1.
PROSITE; PS50278; PDGF-2; 1.
Mitogen; Angiogenesis; Growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                 Conn G., Bayr
Palisi T.M.,
                                                                                                                                                                     SEQUENCE FROM N.A. (ISOFORM VEGF-A164), AND SEQUENCE MEDLINE-90207249; PubMed-2320579;
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              (VEGF-A) splicing variants, masseter muscle.";
                        Ishii H., Arakawa T., Okayama M., Oota I., "Developmental expression of vascular endot (VEGF-A) splicing variants, VEGF-A188, VEGF
                                                                              SEQUENCE FROM N.A. (ISOFORMS VEGF-A188; VEGF-A164; VEGF-A144
                                                                                                                                                                                                                                Mammalia; Eutheria;
                                                                                                                                                                                                                                             Eukaryota; Metazoa;
                                                                                                                                                                                                                                                            Rattus norvegicus (Rat).
                                                                                                      Palisi T.M., Hope D.A., Thomas K.A., "Amino acid and cDNA sequences of a vascular endothelial cell mitogen that is homologous to platelet-derived growth factor.";

Proc. Natl. Acad. Sci. U.S.A. 87:2628-2633(1990).
                                                                                                                                                                                                                    NCBI_TaxID=10116
                                                                  VEGF-A120)
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Rodentia;
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44.3%;
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the EMBL/GenBank/DDBJ databases
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Pred. No. 9.
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INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. ..) (POT
; F00C5A8EA79A465F CRC64;
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                        ta I., Takuma
r endothelial
8, VEGF-Al64,
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9.3e-21;
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                                                                                                                                                               Sullivan
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                   "d T., Inomata K.;
\l growth factor-A
, and VEGP-**
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Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
Mitogen; Angiogenesis; Growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
DISULFID
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CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DiSalvo J., Bayne M.L., Conn G., Kwok P.W., Trivedi P.G., Soderman D.D., Palisi T.M., Sullivan K.A., Thomas K.A.; "Purification and characterization of a naturally occurring vascular
                                                                                                                                                                                                                                                                                                                                  PIR; A35987; A35987.
HSSP; P15692; 1VPP.
InterPro; IPR000072;
                                                                                                                                                                                                                                                                                                                                                                                       EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                         or send
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=95221439;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE=Glial tumor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        [3]
SEQUENCE OF
                                                                                                                                                                                                                             Heparin-binding;
SIGNAL 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                       entities
                                                                                                                                                                                                                                                                                                                                                                            EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; M32167; AAA41211.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                splicing.

TISSUE SPECIFICITY: Expressed in the pituitary, in brain, in particularly in supraoptic and paraventricular nuclei and the choroid plexus. Also found abundantly in the corpus luteum of the ovary and in kidney glomeruli.

SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VEGF-A164 is more basic, has heparin-binding properties and, although a signicant proportion remains cell-associated, most is freely secreted. VEGF-A188 is very basic; it is cell-associated after secretion and is bound avidly by heparin and the extracellular matrix, although it may be released as a soluble form by heparin, heparinase or plasmin (By similarity).

ALTERNATIVE PRODUCTS: At least 4 isoforms; VEGF-A188 (shown here), VEGF-A164, VEGF-A144 and VEGF-A120; are produced by alternative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       with PIGF (By similarity). SUBCELLULAR LOCATION: VEGF-A120 is acidic and freely
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                heparin (By similarity).
SUBUNIT: Homodimer; disulfide-linked. Also
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VEGFR1/Flt-1 and VEGFR2/Kdr receptors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SWISS-PROT entry is copyright. It is produced through a collaboration sen the Swiss Institute of Bioinformatics and the EMBL outstation reduced bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                       AF215725;
AF215726;
                                                                                                                                                                                                                                                                                                                                                                            AF222779;
                                                                                                                                                                                                                                                                                                                                                                                                                                        s requires a license agreement (See http://www.isb-sib.ch/announce/an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        27-40
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82
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AAF19212.1; -.
AAF25958.1; -.
                                                26
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                                                                                                                                                                                                                                          Alternative
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37.5%;
                                                                                                                                                                                                                                                                                                                                     PDGF.
                                                                                                                                                                                                                                                      Growth factor; Glycoprotein;
                                                      MW.
                                                  N-LINKED (GLCNAC...).

K -> N (IN ISOFORM VEGF-A164).

MISSING (IN ISOFORM VEGF-A120).

MISSING (IN ISOFORM VEGF-A144).

V -> A (IN REF. 2; AAF19212).

W; 60FBB876F5304946 CRC64;
                                                                                                                                            BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
                                                                                                                                                                     VASCULAR ENDOTHELIAL GROWTH FACTOR
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                         splicing;
Score 269.5; DB 1; Pred. No. 1.1e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kwok P.W., Thave Thomas K.A.;
                                                                                                                                                                                                                                         Multigene
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Usage
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                                                                                                                                                                                                                                         family
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            Length 214;
                                                                                                                                                                                                                                                       Signal;
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Query Match Best Local Similarity

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Čhordata; (Mammalia; Eutheria; Carnivora; NCBI_TaxID=9615;
                                                                                                                                                                                                                                                use by non-profit institutions as long modified and this statement is not removed: entities requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                     the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE-Heart;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scheidegger P., We
Ballmer-Hofer K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              O9MYV3; Q9XSF5; Q9XSF4; Q9XSF3;
01-MAR-2002 (Rel. 41, Created)
01-MAR-2002 (Rel. 41, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
                                                                        Pfam; PF00341; PDGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Jingjing
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Vascular endothelial growth factor bearing dogs.":
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. (ISOFORM VEGF188).
MEDLINE-20125516; PubMed-10661874;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Canis familiaris (Dog).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vascular endothelial growth factor A precursor (VEGF-A) (Vascular permeability factor) (VPF).
                                                                                                    InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VEGF OR VEGFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VEGA_CANFA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mitted (MAR-1999) to the EMBL/GenBank/DDBJ databases. FUNCTION: Growth factor active in angiogenesis, vasculogenesis and endothelial cell growth. It induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis, and induces permeabilization of blood vessels. It binds to the VEGFRI/FIt-1 and VEGFRI/FIt-1 and VEGFRI/MG receptors and to heparan sulfate and heparin (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                        ALTERNATIVE PRODUCTS: At least 3 isoforms; VEGF188 (shown here VEGF182 and VEGF164; are produced by alternative splicing. SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                European
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBCELLULAR LOCATION: Secret to the extracellular matrix
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     with PIGF (By similarity).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FKPSCVPLMRCAGCCNDEALECVPTSESNVTMQIMRIKPHQSQHIGEMSFLQHSRCECRP
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                                                                                                                      AJ133758; CAB82426.1;
AF133250; AAD29684.1;
AF133249; AAD29683.1;
AF133248; AAD29682.1;
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                            SM00141;
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                                                 PD001629;
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                                                                                                                                                                                                                                                                                                                                                Bioinformatics Institute.
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PDGF;
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                                              PDGF;
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; Fissipedia; Canidae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3 isoforms; VEGF188 (shown here),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (VEGF)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VEGF-182
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                                                                                                                                                                                                                                                                       http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                            Usage
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Best Local S
Matches 55
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VEGF OR VEGFA.
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                                           Shima D.T., Kuroki M., Deutsch U., Ng Y., Adamis A.P., I "The mouse gene for vascular endothelial growth factor. structure, definition of the transcriptional unit, and characterization of transcriptional and post-transcriptional control of transcriptional and post-transcriptional control of transcriptional and post-transcriptional control of transcriptional control of t
                                                                                                                                                                                                                                                                     MEDLINE=92355593; PubMed=1644816; Claffey K.P., Wilkison W.O., Spiegelman "Vascular endothelial growth factor. Rec
                                                                                                                                                                                                                                                                                                                                                                                              angiogenesis and endothelial cell differentiation.";
Development 114:521-532(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-APR-1993 (Rel. 25,
01-OCT-1996 (Rel. 34,
01-MAR-2002 (Rel. 41,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q00731;
01-APR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOUSE
                                                                                                                                              SEQUENCE OF 1-3 FROM N.A. MEDLINE=96216498; PubMed=
                                                                                                                                                                                                                                             differentiation
                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Breier G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=92274860;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VEGA_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                               "Expression of vascular"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LALLLYLHHAKWSQAAPMAGGEHKPHEVVKFMDVYQRSYCRPIETLVDIFQEYPDEIEYI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LAALLQLAPAQAPVSQPDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity 45.1
55; Conservative
                                                                                                                                                                                                                      Chem. 267:16317-16322(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PS00249; PDGF_1; 1.
PS50278; PDGF_2; 1.
Angiogenesis; Growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        214 AA;
                                                                                                                                                                                                                                                                                                                   N.A. (ISOFORM VEGF-1).
593; PubMed=1644816;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              214
93
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                                                                                                                                                PubMed-8632007;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PubMed=1592003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (ISOFORMS VEGF-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      37.3%;
45.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Last sequence up
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                               Sterrer S., endothelial
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 268.5;
Pred. No. 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ъH
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MISSING (IN ISOFORM VEGF-164).
MISSING (IN ISOFORM VEGF-182).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-LINKED (GLCNAC. . .) (POTENTIAL).
K -> N (IN ISOFORM VEGF-164).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VASCULAR ENDOTHELIAL GROWTH FACTOR BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INTERCHAIN (BY INTERCHAIN (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Craniata; Veri
Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  factor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -> V (IN REF. 2).
-> S (IN REF. 2).
0AC980A158C44B27
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Risau
                                                                                                                                                                                                                                                                                                                                                                                                                                               Risau W.;
growth factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       n update)
precursor
                                                                                                                                                                                                                                                messenger
                                                                                                                                                                                                                                                                       man B.M.;
Regulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VEGF-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      214
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.3e-20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Vertebrata;
thi; Muridae;
                                              post-transcriptional
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ž
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                                                                                                                                                                                                                                             pathways.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (VEGF-A)
                                                                                                                                                                                                                                                                          γď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VEGF-3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CRC64
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                                                                                                                                                                                                                                                                                                                                                                                                                                             during
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                                                                                                                                                                                                                                                                       cell
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Murinae;
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(Vascular

Gaps

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P.A.;

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Best Local S
Matches 55
                                                                                                                                                                                          Heparin binding; A SIGNAL 1
CHAIN 27
DISULFID 51
DISULFID 82
DISULFID 76
DISULFID 76
DISULFID 85
CARBOHYD 100
VARSPLIC 140
VARSPLIC 141
VARSPLIC 141
CONFLICT 117
                                                                                                                                                                               DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
CARBOHYD
VARSPLIC
VARSPLIC
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            J. Biol. Chem. -!- FUNCTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               use by non-profit institutions as long modified and this statement is not removed. entitles requires a license agreement (See
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the El the European Bioinformatics Institute. There are no rest
                                                                                                                                                                                                                                                                                                                                                                          Mitogen;
                                                                                                                                                                                                                                                                                                                                                                                        SMART; SM00141; PDGF; 1.
pROSITE; PS00249; PDGF_1; 1.
pROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                            MGD; MGI:103178; Vegf.
InterPro; IPR000072; PD
Pfam; PF00341; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    or send
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <del>-</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <del>:</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                  ProDom;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HSSP;
  72
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  splicing.

TISSUE SPECIFICITY: In developing embryos, expressed mainly in technoroid plexus, paraventricular neuroepithelium, placenta and kidney glomeruli. Also found in bronchial epithelium, addrenal gland and in seminiferous tubules of testis. High expression of VEGF continues in kidney glomeruli and choroid plexus in adults. DOMAIN: VEGF-3 contains a basic insert which acts as a cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              retention signal SIMILARITY: BELOW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3iol. Chem. 271:3877-3883(1996).

FUNCTION: Growth factor active in angiogenesis, vasculogenesis are endothelial cell growth. It induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis, and induces permeabilization of blood vessels. It binds to the VEGFR1/Flt-1 and VEGFR2/Kdr receptors and to heparan sulfate and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     remains cell-surface associated unless released k ALTERNATIVE PRODUCTS: 3 isoforms; VEGF-3/VEGF188 VEGF-1/VEGF164 and VEGF-2/VEGF120; are produced k
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              with PlGF (By similarity). SUBCELLULAR LOCATION: VEGF-1 and VEGF-2 are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        heparin (By similarity).
SUBUNIT: Homodimer; disulfide-linked. Also found as heterodimer
                                                                LAALLQLAPAQAPVSQPDAPGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A43351; A43351.
              LVPSCYTVQRCGGCCPDDGLECYPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  $37052;
$38083;
$38100;
$95200;
$041383;
FKPSCVPLMRCAGCCNDEALECVPTSESNITMQIMRIKPHQSQHIGEMSFLQHSRCECRP
                                                      LALLLYLHHAKWSQAAPTTEGEQKSHEVIKFMDVYQRSYCRPIETLVDIFQEYPDEIEYI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P15692;
                                                                                                              55,
                                                                                                                                                                                                                                                                                                                                                                                                                               PD001629; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    an
                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                            Angiogenesis; Growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  equires a license agreement (S email to license@isb-sib.ch).
                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAB22252.1; -.; AAB22253.1; -.; AAB22254.1; -.; AAB40547.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2VPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BELONGS TO THE
                                                                                                                                                                                                                                                                                                                                                               Alternative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NOT_ANNOTATED_CDS.
                                                                                                                                                                                                         26
214
214
127
129
129
100
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140
                                                                                                                                                                               25283
                                                                                                                        37.2%;
                                                                                                                                                                                MW.
                                                                                                                                                                                       with factor; Glycoprotein; Signal;
ve splioing; Multigene family.

ve splioing; Multigene family.

ve splioing; Multigene family.

ve splioing; Multigene family.

VASCULAR ENDOTHELIAL GROWTH FACTOR A
BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

INTERCHAIN (BY SIMILARITY).

INTERCHAIN (BY SIMILARITY).

N-LINKED (GLCNAC. . .) (PROBABLE).

K -> N (IN ISOFORM VEGF-1).

MISSING (IN ISOFORM VEGF-1).

MISSING (IN ISOFORM VEGF-2).

GE -> ER (IN REF. 2).
                                                                                                           23;
                                                                                                           Score 267.5;
Pred. No. 1.7e
23; Mismatches
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RESULT
VEGA_BO
                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
   EMBL;
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PIR; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tischer E., Gospodarowicz D., Mitchell R.,
Lau K., Crisp T., Fiddes J.C., Abraham J.A.,
"Vascular endothelial growth factor: a new
derived growth factor gene family.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A., AND SEQUENCE MEDLINE=90069608; PubMed=2479986; Leung D.W., Cachianes G., Kuang W "Vascular endothelial growth fact mitogen ".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-APR-1990 (Rel. 14, Created)
01-APR-1990 (Rel. 14, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation updat
Vascular endothelial growth factor A precur
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Bovidae; Bovinae; B
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BL; M32976; AAA30802.1;
BL; M31836; AAA30805.1;
BL; M3375; AAA30805.1;
R; A33325; A33255.
R; A33787; A33787.
R; B40080; B40080.
                                                                                                                                                                                                                                                                                                                                                                              heparin (By similarity).

SUBUNIT: Homodimer; disulfide-linked. Also
with PlGF (By similarity).

SUBCELLULAR LOCATION: Secreted but remains
                                                                                                                                                                                                                                                                                                                                                                                                                                                           FUNCTION: Growth factor active in angiogenesis, vasculogenes endothelial cell growth. It induces endothelial cell promotes cell migration, inhibits apoptosis, induces permeabilization of blood vessels. It binds to the VEGFR1/Flt-1 and VEGFR2/Kdr receptors and to heparan sulfate
                                                                                                                                                                                                                                                                                        produced by SIMILARITY:
                                                                                                                                                                                                                                                                                                                             similarity)
ALTERNATIVE
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                                                                                                                                      email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                          BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS
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Cetartiodactyla; Ruminantia; Pecora;
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VEGA_HUMAN
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Best Local
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DISULFID
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CARBOHYD
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SEQUENCE
         Tischer E., Mitchell R., Hartman T., Fiddes J.C., Abraham J.A.; "The human gene for vascular endothel
                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VEGA_HUMAN STANDARD; PRT; 232 AA. P15692; Q16889; O60720; O75875; Q9UL23; Q9UH58; O1-APR-1990 (Rel. 14, Created)
O1-MAR-2002 (Rel. 41, Last sequence update)
O1-MAR-2002 (Rel. 41, Last annotation update)
Vascular endothelial growth factor A precursor permeability factor) (VPF).
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Heparin-binding;
SIGNAL 1
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SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
Mitogen; Angiogenesis; Growt
                                                                                                                                                                                Keck P.J., Hauser
Connolly D.T.;
                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. (ISOFORMS VEGF189 AND VEGF165).
MEDLINE-90069608; PubMed-2479986;
Leung D.W., Cachianes G., Kuang W.-J., Goeddel D.V.
                                                                                                                                             "Vascular permeability PDGF.";
                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE=90069609; I
                                                                                                                                                                                                                                                                          Science
                                                                                                                                                                                                                                                                                                            "Vascular endothelial
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (Human)
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                                                                    MEDLINE=91268072;
                                                                                      SEQUENCE FROM N.A.
                                                                                                                            Science
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PDGF; 1.
                                                                                                                                                                                               . (ISOFORM VEGF189), AND PubMed=2479987; S.D., Krivi G., Sanzo K.
                                                                 PubMed=1711045;
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45.1%;
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MISSING (IN ISOFORM BETA).
R -> K (IN ISOFORM BETA);
EDBF903E46E24789 CRC64;
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INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . .) (POT
               endothelial
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SIMILARITY.
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actor is
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                                                                                                                                                            endothelial
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No. 1.9e-20;
                                                 Silva M.,
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; Multigene family
                                                                                                                                                                                                                                                                                                            Goeddel D.V., Ferrara a secreted angiogenic
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           growth
                                                                                                                                                                                                                                     PARTIAL SEQUENCE
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                                                                                                                                                              cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (VEGF-A)
                                                 Gospodarowicz D.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mol.
                                    SEQUENCE FROM N.A. (ISOFORM Sato J.D., Whitney R.G.;
                                                                                      and receptor mRNA identification of
                                                                                                                                        TISSUE=Renal glomerulus;
MEDLINE=99394945; PubMed=10464055;
Whittle C.J., Gillespie K.M., Harr
                                                                                                                                                                                  SEQUENCE FROM N.A. (ISOFORM VEGF148).
                                                                                                                                                                                                                                              TISSUE-Hemangioendothelioma;
Murata H., Fukushima J., Hat
                                                                                                                                                                                                                                                                                                 Jingjing L., Xue Y., Agarwal N., Roque R.S.; "Human Muller cells express VEGF183, a novel sp vascular endothelial growth factor."; Invest. Ophthalmol. Vis. Sci. 40:752-759(1999).
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vascular endothelial growth factor: VEGF18
Biochim. Biophys. Acta 1443:400-406(1998).
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MEDLINE-97207275; PubMed-9054410;
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of RNA.";
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                           "Human
                                                                                        "Heterogeneous vascular endothelial growth and receptor mRNA expression in human glome identification of VEGF148 mRNA, a novel tru
                                                                                                                                Harper S.J.;
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                                                                                                                                                                                                                                    "Human cDNA for the
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                         cDNA for vascular endothelial growth
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Chem. 272:7151-7158(1997).
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            (DEC-1999)
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             EMBL/GenBank/DDBJ databases
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                         factor isoform VEGF121.";
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of alternative spl
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SEQUENCE FROM N.A.

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Muller Y.A., Christinger H.W., Keyt B.A., de Vos A.M.; "The crystal structure of vascular endothelial growth factor (VEGF) refined to 1.93-A resolution: multiple copy flexibility and recepto binding.":
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MEDLINE=97352774; Pu
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receptor-binding domain of vasci-
Protein Sci. 6:2250-2260(1997).
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Fiebich B.L., Jaeger B., Schoellmann
Kochs G., Marme D., Hug H., Weich H.?
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Starovasnik M.A.;
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Starovasnik M.A.;
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MEDLINE-99119204; PubMed-9922142;
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Muller Y.A., Chris
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted
                                                                                                                                                                                                                      "Solution structure of the heparin-binding
heparin.
SUBUNIT:
with PIGF
         FUNCTION: Growth factor active in angiogenesis, vasculogenesi endothelial cell growth. It induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis, a induces permeabilization of blood vessels. It binds to the VEGFR1/Fit-1 and VEGFR2/Kdr receptors and to heparan sulfate heparin. Neuropilin-1 binds isoforms VEGF-165 and VEGF-145. SUBUNIT: Homodimer; disulfide-linked. Also found as heterodim
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6:637-648(1998).
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Fitzgerald D.J.;
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Cochran A.G., www.
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VEGF-2 receptor.";
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and a receptor-blocking
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Query Match Best Local This -between --÷ extracellular matrix, although it may be released as a soluble form by heparin, heparinase or plasmin.
ALTERNATIVE PRODUCTS: 7 isoforms; VEGF206 (shown here), VEGF189, VEGF183, VEGF165/VEGF, VEGF146, VEGF145 and VEGF121; may be produced by alternative splicing.
TISSUE SPECIFICITY: The VEGF189, VEGF-165 and VEGF-121 isoforms INDUCTION: Regulated by growth factors, cytokines, gonadotrop: nitric oxide, hypoxia, hypoglycemia and oncogenic mutations. SIMILARITY: BELONGS TO THE PDGF/VPGGF FAMILY OF GROWTH FACTORS DATABASE: NAME-R&D Systems' cytokine mini-reviews: VEGF; VEGF165 is more basic, has heparin-binding properties and, although a signicant proportion remains cell-associated, most freely secreted. VEGF189 is very basic; it is cell-associated after secretion and is bound avidly by heparin and the WWW="http://www.rndsystems.com/asp/g\_sitebuilder.asp?bodyId=230" are widely expressed, whereas SUBCELLULAR LOCATION: VEGF121 is acidic and freely SWISS-PROT entry is copyright. It is produced through a collaboration -en the Swiss Institute of Bioinformatics and the EMBL outstation -Similarity 36.7%; 43.9%; Score 264; DB 1; Pred. No. 4.2e-20; 1; Mismatches 44 the VEGF206 and and Length VEGF-121 VEGF-145 232; gonadotropins secreted isoforms are is 2

Matches 126 132 72 67 12 10 LAALLQLAPAQAPVSQPDAPG---HQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAK PKK QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR 125 PKK LALLLYLHHAKWSQAAPMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEY IFKPSCVPLMRCGGCCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECR 128 Conservative 21; 4; Gaps 66

CCCCCCCCTTTAAARRAN VEGA\_ RESULT 01-OCT-1996 (Rel. 34, 01-OCT-1996 (Rel. 34, 01-MAR-2002 (Rel. 41, Vascular endothelial c MEDITINE-97117958; PubMed=8958842;
MEDITINE-97117958; PubMed=8958842;
Medmar D.A., Dai Y., Li J., Charnock-Jones D.S., Smith S.K.,
Reynolds L.P., Moor R.M.;
"Characterization and expression of vascular endothelial growth
factor (VEGF) in the ovine corpus luteum.";
J. Reprod. Fertil. 108:157-165(1996).

1- FUNCTION: Growth factor active in angiogenesis, vasculogenes
endothelial cell growth. It induces endothelial cell
proliferation, promotes cell migration, inhibits apoptosis,
induces permeabilization of blood vessels. It binds to the
VEGFRI/FIt-1 and VEGFRZ/Kdr receptors and to heparan sulfate VEGA\_SHEEP P50412; Eukaryota; Metazoa; Mammalia; Eutheria; SHEEP -TISSUE=Kidney SEQUENCE FROM Bovidae; Caprinae; NCBI\_TaxID=9940; Ovis aries (Sheep). permeability factor) VEGF OR VEGFA heparin (By similarity).
SUBUNIT: Homodimer; disulfide-linked.
with PIGF (By similarity).
SIMILARITY: BELONGS TO THE PDGF/VEGF N.A. STANDARD; 34, Last sequence update)
41, Last annotation update)
ial growth factor A precursor Ovis Chordata; Crania Cetartiodactyla; (VPF). Created) Craniata; Verteьта actyla; Ruminantia; 146 Vertebrata; A Also (VEGF-A) (Vascular found Pecora; vasculogenesis and Euteleostomi; as heterodimen sulfate Bovoidea

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s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way the content is in the content in the content in the content is in the content in the content is in the content in the content in the content is in the content in the content in the content is in the content in the content in the content in the content is in the content in t

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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P26617:
01-AUG-1992 (Rel. 23, Created)
01-AUG-1992 (Rel. 23, Last sequence update)
01-AUG-1992 (Rel. 41, Last annotation update)
Vascular endothelial growth factor A (VEGF-A)
factor) (VPF).
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SEQUENCE
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAVPO
                                                                                       Submitted (JAN-1992) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: Growth factor active in angiogenesis, and endothelial cell growth. Induces endothelial proliferation and vascular permeability (By similarity).
-!- SUBUNIT: Homodimer; disulfide-linked. Also found as heterodimer with PlGF (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
Mitogen; Angiogenesis; Growth factor; Glycoprotein;
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                            SUBCELLULAR LOCATION: Secreted but remains associated to cells to the extracellular matrix unless released by heparin (By
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Hystricognathi; Caviidae;
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lae; Cavia.
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YEAR_CHICK STANDAKU,

VEGA_CHICK STANDAKU,

C P52582; 091420;

T 01-OCT-1996 (Rel. 34, Created)

T 10-JUL-1998 (Rel. 36, Last sequence update)

JT 15-JUL-1998 (Rel. 36, Last sequence update)

JT 01-MAR-2002 (Rel. 41, Last annotation update)

DE Vascular endothelial growth factor A precursor (VF

DE permeability factor) (VPF).

GN VEGF OR VEGFA. (Chicken), and

OS Gallus gallus (Chicken), and

OS Coturnix courrix japonica (Japanese quail).

OS Coturnix courrix japonica (Japanese puail).
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VEGA_CHICK
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Best Local S
Matches 49
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PROSITE; PS00249; PDGF; 1.

PROSITE; PS50278; PDGF; 2: 1.

Mitogen; Angiogenesis; Growth f.
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DISULFID 56 101 BY
DISULFID 60 103 BY
DISULFID 50 50 INP
DISULFID 59 59 INP
CARBOHYD 74 74 74 N-
SEQUENCE 164 AA; 19330 MW;
Flamme I., von Reutern M., Drexler H.C., Syed-Ali S., Risau W "Overexpression of vascular endothelial growth factor in the embryo induces hypervascularization and increased vascular permeability without alterations of embryonic pattern formati Dev. Biol. 171:399-414(1995).
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                                                                                                                                                                 SPECIES=C.c.japonica; TISSUE=Embryo; MEDLINE=96005007; PubMed=7556923;
                                                                                                                                                                                                                                                                             Submitted
                                                                                                                                                                                                                                                                                                                                SPECIES=Chicken;
Takahashi T.;
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                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                           "Chick embryonic ventricular myocytes VEGF.";
Submitted (FEB-1998) to the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=9031,
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Pfam; PF00341; PDGF;
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Pred.
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INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . .) (POTI
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BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
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Craniata; Vertebrata;
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Phasianidae; Phasiani
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"Vascular endothelial growth factor (VEGF) and VEGF receptor 2

(flk-1) are expressed during vasculogenesis and vascular

differentiation in the quail embryo.";

Dev. Biol. 169:699-712(1995).

-!- FUNCTION: Growth factor active in angiogenesis, vasculogenesis an

endothelial cell growth. It induces endothelial cell

proliferation, promotes cell migration, inhibits apoptosis, and
induces permeabilization of blood vessels. It binds to the

VEGFRI/Fit-1 and VEGFR2/Kdr receptors and to heparan sulfate and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                     Prodom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-95301109; PubMed=7781909; Flamme I., Breier G., Risau W.;
                                                                                                                                                                                                                                                                                                                                                                               CHAIN
                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                          Mitogen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; AB011078; BAA24925.1;
EMBL; S79680; AAB35371.1; -
HSSP; P15692; 1VGH.
InterPro; IPR000072; PDGF.
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                                                                                                                                                                                                                                                                                                                                                                                                           Heparin-binding;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00341; PDGF;
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 72
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DOMAIN: VEGF190 contains a basic insert which acts as a cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               heparin (By similarity).
SUBUNIT: Homodimer; disulfide-linked. Also found as heterodimer with PLCF (By similarity).
ALTERNATIVE PRODUCTS: At least 3 isoforms; VEGF190 (shown here),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          retention signal.
SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF
                                                                                  LAALLQLAPAQAPVSQPDAPGHQRK----VVSWIDVYTRATCQPREVVVPLTVELMGTVAK
IFRPSCVPLMRCAGCCGDEGLECVPVDVYNVTMEIARIKPHQSQHIAHMSFLQHSKCDCR
                           QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR
                                                           LAALLYLQSAELSKAAPALGDGERKPNEVIKFLEVYERSFCRTIETLVDIFQEYPDEVEY
                                                                                                                         Similarity 40.7
                                                                                                                                                                                                                                                                                                                                                                                                                          Anglogenesis;
                                                                                                                                                                                                      216
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                                                                                                                                                                                                                                                                                                                                                                                                            Alternative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PDGF; 1.
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                                                                                                                                                                                                    MW;
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BY SIMILARITY.

EX SIMILARITY.

INTERCHAIN (BY SIMILARITY).

INTERCHAIN (IN ISOFORM VEGF-146).

MISSING (IN ISOFORM VEGF-146).

MISSING (IN ISOFORM VEGF-146).

MISSING (IN ISOFORM VEGF-146).
                                                                                                                         21;
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                                                                                                                       Score 236; DB 1
Pred. No. 3e-17;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                            n factor; Glycoprotein; Signal; splicing; Multigene family. By SIMILARITY. BY SIMILARITY TASCULAR ENDOTHELIAL GROWTH FACTOR
                                                                                                                                                      DB 1;
                                                                                                                         48;
                                                                                                                                                      Length 216
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VEGH_ORFN2
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Best Local S
Matches 36
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proDom; pD001629; pDGF; 1.
SMART; SM00141; pDGF; 1.
SMOSITE; pS00249; pDGF=1; 1.
pROSITE; pS50278; pDGF=2; 1.
pROSITE; pS50278; pDGF=2; 1.
growth factor; Glycop
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Orf virus (strain NZ2) (
Viruses; dsDNA viruses,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Vascular endothelial growth factor homolog pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; S67520; AAB29220.2;
HSSP; P15692; 1VPP.
InterPro; IPR000072; PDGF.
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or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -!- FUNCTION: INDUCES ENDOTHELIAL PROLIFERATION.
-!- SUBUNIT: HOMODIMER; DISULFIDE-LINKED (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   poxvirus orf virus.";
J. Virol. 68:84-92(1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the European Bioinformatics Institute. The European Bioinformatics Institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tyttle D.J., Fraser K.M., Fleming "Homologs of vascular endothelial
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SMELLGASGSGSNGMQRLSFVEHKKCDCRPR
                                                                                      WSEVLKGSECKPRPIVVPVSETHPELTSQRFNPPCVTLMRCGGCCNDESLECVPTEEVNV
                                                                                                                                                                          Similarity
36; Conser
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RNA stage; Poxviridae; Chordopoxvirinae;
                                                                                                                                                                                                                                                                                                      HOMOLOG.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

INTERCHAIN (BY SIMILARITY).

INTERCHAIN (BY SIMILARITY).

INTERCHAIN (BY SIMILARITY).
                                                                                                                                                                        Score 199.5; DB Pred. No. 1e-13; 9; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL.
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                                                                                                                                                                                                                                                                                        917C0F6883030C39 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S.B., Mercer A.A., Robinson , growth factor are encoded by
117
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Signal.
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                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GROWTH FACTOR
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Matches 39
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PLGF_BOVIN STAI

Q9XS47;

Q1-MAR-2002 (Rel. 4

01-MAR-2002 (Rel. 4

01-MAR-2002 (Rel. 4
                                                                                                                                                                                                                 CHAIN
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa;
Mammalia; Eutheria;
Bovidae; Bovinae; Bo
                                                                                                                                                                                                                                                                                                                                    SIGNAL
                                                                                                                                                                                                                                                                                                                                             Mitogen;
                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00249; PDGF_1; 1. PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                    SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                 ProDom;
                                                                                                                                                                                                                                                                                                                                                                                                             Pfam;
                                                                                                                                                                                                                                                                                                                                                                                                                                      HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AB004272; BAA77684.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Structure and expression
Submitted (MAY-1997) to th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Placenta growth PGF OR PLGF.
                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR000072; PDGF.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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132
                         126
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ructure and expression of bowine VEGF family ";
mitted (MAY-1997) to the EMBL/GenBank/DDBJ datases.
FUNCTION: Growth factor active in anglogenesis, and endothelial
cell growth, stimulating their proliferation and migration. It
binds to receptor VEGFR-1/FLF1 (By similarity).
SUBUNIT: Antiparallel homodimer; disulfide-linked. Also found as
heterodimer with VEGF/VEGF-A (By similarity).
SUBCELLULAR LOCATION: Secreted (By similarity).
SUBCELLULAR EDCATION: Secreted (By similarity).
'n
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                                                                                                                       RLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAK
                                                 LFSPSCVSLMRCTGCCSDESMHCVPLETANVTMQLMKYRSLDQPFFVEMSFSQHVRCECK 131
                                                                         QLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECR
                                                                                                 QLLTGLVLPAVPTTQWALSPGNISSEVEVVPFQQVWSRSYCRPVERLVDIVSEYPSEMEH
                                                                                                                                                                                                                                                                                                                                                                                              PF00341; PDGF; 1.
m; PD001629; PDGF; 1.
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132
                         126
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                                                                                                                                                      Conservative
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41, Last sequence up
41, Last annotation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chordata; Craniata; Vertebrata; Euteleostomi;
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32
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INTRACHAIN (BY SIMILARITY).
INTRACHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC...) (POTENTIAL).
N-LINKED (GLCNAC...) (POTENTIAL).
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Pred.
                                                                                                                                                                                                                                                                                                                     PLACENTA GROWTH
                                                                                                                                                                                                                                                                                                                                    POTENTIAL.
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No. 8.
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RESULT
PLGF_HU
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PGF OR PIGF.
Homo sapiens (Human).
Homo sapiens (Human).
Horia; Metazoa; Chordata; (Anticolor)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Alltalo K., del Vecchio S., Lei K.-J., Chou J.Y., Persico M.G.; "Two alternative mRNAs coding for the angiogenic factor, placenta growth factor (PIGF), are transcribed from a single gene of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Isolation of a human placenta cDNA coding for a the vascular permeability factor.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PIGF_HUMAN STANDARD; PRT; 221 AA P49763; Q9BV78; Q9Y6S8; Q07101; 01-CCT-1996 (Rel. 34, Created) 01-MAR-2002 (Rel. 41, Last sequence update) 01-MAR-2002 (Rel. 41, Last annotation update) 01-MAR-2002 (Rel. 41, Last annotation update) Placenta growth factor precursor (PIGF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HUMAN
                          MEDLINE=21192270;
Iyer S., Leonidas
                                                                              factor bioactivity, in vitro and in vivo,
to Flt-1 but not to Flk-1/KDR.";
D. Biol. Chem. 269:25646-25654(1994).
                                                                                                         Park J.E., Chen H.H., Winer J., Houck K.A., Ferrara N.; "Placenta growth factor. Potentiation of vascular endothelial factor bioactivity, in vitro and in vivo, and high affinity b
                                                                                                                                                   CHARACTERIZATION, AND SEQUENCE OF MEDLINE=95014370; PubMed=7929268;
                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. (ISOFORM PLGF-1).
ROWEN L., Madan A., Qin S., Abbasi N., I
LOTET C., Lasky S., Madan A., Prescott
                                                                                                                                                                                                                                                                                                                                                       Cao Y., Ji W.-R., Qi P., Rosin A., Cao Y.; "Placenta growth factor: identification and characterization novel isoform generated by RNA alternative splicing."; Biochem. Biophys. Res. Commun. 235:493-498(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hauser S.D., Weich H.A.;
"A heparin-binding form of placenta growth factor (PIGF-2) expressed in human umbilical vein endothelial cells and in
                                                                                                                                                                                                                                                              Submitted
                                                                                                                                                                                            Submitted
                                                                                                                                                                                                                     FISSUE-Muscle,
                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                       lood L.;
                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE-Placenta;
MEDLINE-97350807; PubMed-9207183;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Maglione D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=93205407;    PubMed=7681160;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PARTIAL SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=9606;
                                                    -RAY CRYSTALLOGRAPHY (2.0 ANGSTROMS)
                                                                                                                                                                                                                                                                            Sequencing
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Factors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8:925-931(1993).
              Persico
                                                                                                                                                                                           (MAY-2001) to
                                                                                                                                                                                                                                                            (MAY-1999)
                                                                                                                                                                                                         ₽.
                                                                                                                                                                                                                                                                          of human chromosome 14.";
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                                                                                                                                                                                                                     and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9:259-268(1993).
         PubMed=11069911;
D.D., Swaminathan G.J.,
M.G., Acharya K.R.;
                                                                                                                                                                                                                      Placenta;
                                                                                                                                                                                                                                                                                                                                                                                                                                          (ISOFORM PLGF-3).
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                                                                                                                                                                                                                                 (ISOFORM PLGF-2)
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                                                                                                                                                                 OF 19-24
                                                     (ISOFORM
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growth
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ferraro
                         Maglione D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hominidae;
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                                                                                                                                                                                                                                                                                                     Ratcliffe
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 factor-1
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Persico M.G.;
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                            Battisti M.,
 (PlGF-1),
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Matches 43
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                                                                                                            CONFLICT
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VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 appears to remain cell attached unless released by heparin.

-!- ALTERNATIVE PRODUCTS: 3 isoforms; PIGF-1/PIGF-131, PIGF-2/PIGF-
and PIGF-3 (shown here); are produced by alternative splicing.
-!- TISSUE SPECIFICITY: While the three forms are present in most placental tissues, the PIGF-2 is specific to early (8 week) placenta and only PIGF-1 is found in the colon and mammary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   angiogenic protein, at 2.0 A resolution.";
J. Biol. Chem. 276:12153-12161(2001).
-!- FUNCTION: Growth factor active in angiogenesis, and endothelial cell growth, stimulating their proliferation and migration. It binds to receptor VEGFR-1/FLT1. PLGF-2 binds neuropilin-1 and 2
                                                                                                                                                                                                                                                                                                                  PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
Mitogen; Growth factor; Glycoprotein; Signal;
                                                                                                                                                                                                                                                                                                                                                        ProDom; PD001629; PDGF; 1. SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                          MIM;
                                                                                                                                                                                                                                                                                                                                                                                                                       PDB;
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                                                                                                                                                                                                                                                                                                SIGNAL
                                                                                                                                                                                                                                                                                                          Alternative
                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF00341; PDGF;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     retention signal.
PTM: N-GLYCOSYLATED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and as monomer.
SUBCELLULAR LOCATION: The three forms are secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a heparin-dependent manner.
SUBUNIT: Antiparallel homodimer; disulfide-linked.
heterodimer with VEGF/VEGF-A. PIGF-3 is found both
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN: PLGF-2 contains a basic insert which acts as a cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           carcinomas.
                                                                                                                                                                                                                                                                                                                                                                                                          601121;
               PLLRRLLLAALLQLAPAQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMG
PCFLQLLAGLALPAVPPQQWALSAGNGSSEVEVVPFQEVWGRSYCRALERLVDVVSEYPS
                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                          IPR000072; PDGF.
                                                                                                                                                                                                                                                                                                                                                                                                                       09-MAY-01.
                                                                                                            91
221 AA;
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193
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101
                                                                                                                                                                                                                                                                                                         splicing;
                                                Conservative
                                                                                                                                                                       18
221
213
213
94
128
130
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130
130
203
                                                                                                            91
24788
                                                          24.5%;
34.1%;
                                                                                                                                                                                                                                                                                                          3D-structure.
                                                                                                            MW;
                                                18;
                                             Score 176.5;
Pred. No. 3.9e
18; Mismatches
                                                                                                                                             N-LINKED (GLCNAC...
N-LINKED (GLCNAC...
MISSING (IN ISOFORM F
PLGF-2).
R -> RRRPKGRGKRRREKQF
                                                                                                           PLGF-2).
N -> D (IN REF. 2).
; D364C6A73C1C6987
                                                                                                                                                                                                         INTERCHAIN.
                                                                                                                                                                                                                                                                     PLACENTA GROWTH HEPARIN-BINDING
                                                                                                                                              RRRPKGRGKRRREKQRPTDCHL
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                                             5; DB 1;
3.9e-11;
hes 60;
                                                                                                                                                                                                                                                                    FACTOR. (PROBABLE).
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.) (POTENTIAL).
PLGF-1 AND ISOF
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J. Biol. Chem. 270:7717-7723(1995).

1- FUNCTION: Growth factor active in angiogenesis, and endothel cell growth, stimulating their proliferation and migration. binds to receptor VEGFR-1/FLT1 (By similarity).

1- SUBUNIT: Antiparallel homodimer; disulfide-linked. Also four
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
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01-MAR-2002 (Rel. 41, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
Placenta growth factor precursor (PIGF).
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Pfam; PF00341; PDGF;
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-!- SUBCELLULAR LOCATION: Secreted (By similarity).
-!- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
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INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . .).
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PLACENTA GROWTH FACTOR.
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                          (GLCNAC...)
(GLCNAC...)
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Query Match Best Local Matches

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24.5%;

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Score 176; DB 1; Pred. No. 3.2e-11; 0; Mismatches 55

Length 158; Indels

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RESULT 19
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01-OCT-1996 (Rel. 3
01-MAR-2002 (Rel. 4
Placenta growth fav
                                                      PROSITE;
                                                                                                                                                                                                the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. STRAIN=NIH SWISS; MEDLINE=98065381;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Dipalma T., Tucci M., Russo Saccone S., della Valle G., Viglietto G., Persico M.G.; "The placenta growth factor Mamm. Genome 7:6-12(1996).
                                                                                            InterPro; IPR000072; PDGF. Pfam; PF00341; PDGF; 1. ProDom; PD001629; PDGF; 1.
                                                                                                                                                  EMBL; X80171; CAA56453.1; -. EMBL; X96793; CAA65587.1; -. HSSP; P15692; 2VPF.
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-I- FUNCTION: Growth factor active
                                                                                 ProDom; PD001629; PDGF; SMART; SM00141; PDGF; 1.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                             SIGNAL
                                        Mitogen;
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Achen M.G., Gad J.M., Stacker S.A., Wilks A.F.;
"Placenta growth factor and vascular endothelial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE-97059399;
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                                                                                                                                                                                                                                                                                                             FUNCTION: Growth factor active in anglogenesis, and endothelia cell growth, stimulating their proliferation and migration. It binds to receptor VEGFR-1/FLTI (By similarity).
SUBUNIT: Antiparallel homodimer; disulfide-linked. Also found heterodimer with VEGF/VEGF-A (By similarity).
SUBCELLULAR LOCATION: Secreted (By similarity).
SUBCELLULAR LOCATION: Secreted (By similarity).
                                                                                                                                    MGI:105095; Pgf.
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                                       PS00249; PDGF_1; 1.
PS50278; PDGF_2; 1.
Growth factor; Glyc
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L M., Russo G., Ma
Walle G., de Gre
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34, Last sequence up
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Best Local S
Matches 39
                                                                                                                                                                                                                                                                         MEDILINE-98288130; PubMed-9622638; Avantaggiato V., Orlandini M., Avantaggiato v., Orlandini M., Avantaggiato expression pattern of belonging to platelet-derived growth factor family."; Mech. Dev. 73:221-224(1998).
RECEPTOR SPECIFICITY.

RECEPTOR SPECIFICITY.

RECEPTOR SPECIFICITY.

RECEPTOR SPECIFICITY.

Baldwin M.E., Catimel B., Nice E.C., Roufail S., Hall N.E.,

Stenvers K.L., Karkkainen M.J., Alitalo K., Stacker S.A., Achen M.G.;

"The specificity of receptor binding by vascular endothelial growth factor-d is different in mouse and man.";

J. Biol. Chem. 276:19166-9971(2001).

-I- FUNCTION: Growth factor active in angiogenesis, lymphangiogenesis and endothelial cell growth, stimulating their proliferation and and endothelial cell growth selfects on the permeability of blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VEGD_MOUSE
P97946;
01-MAR-2002
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STRAIN-C57BL/6J; TISSUE-Fibroblast;
MEDLINE-97030254; PubMed-8876195;
Orlandini M., Marconcini L., Ferruzzi R., Oliviero S.;
"Identification of a c-fos-induced gene that is related platelet-derived growth factor/vascular endothelial groven
                                                                                                                                                                                                                                                                                                                                                                                                                                           Genomics 42:483-488(1997).
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Eukaryota; Metazoa;
Mammalia; Eutheria;
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01-MAR-2002 (Rel. 41, Last sequence up
01-MAR-2002 (Rel. 41, Last annotation
Vascular endothelial growth factor D p
growth factor) (FIGF).
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MEDLINE-97349118; PubMed-9205122;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Yamada Y., Nezu J.-I., Shimane M., Hirata Y.;
"Molecular cloning of a novel vascular endothelial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EQUENCE
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Sciurognathi;
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thi; Muridae;
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Murinae; Mus
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EMBL; D89628;
HSSP; P15692;
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PROSITE: PS50278; PDGF_2; 1.
Mitogen; Growth factor; Glycoprotein; Signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entities requires a license agreement (S or send an email to license@isb-sib.ch).
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SUBUNIT: Homodimer; non-covalent and antiparallel.
SUBCELLILAR LOCATION: Secreted.
TISSUE SPECIFICITY: Highly expressed in fetal and adult lung. DEVELOPMENTAL STAGE: Expressed in a dynamic pattern in several body structures and organs of the embryo such as limb buds, acoustic ganglion, teeth, heart, anterior pituitary as well as lung and kidney mesenchyme, liver, derma, and periosteum of the variethral column
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PTM: Undergoes a complex proteolytic maturation which generates a variety of processed secreted forms with increased activity toward VEGFR-3 and VEGFR-2. VEGF-D first form an antiparallel homodimer linked by disulfide bonds before secretion. The fully processed VEGF-D is composed mostly of two VEGF homology domains (VHDs) bound by non-covalent interactions (By similarity). SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
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TSYISKOLFEISVPLTSVPELVPVKIANHTGCKCLP 198
                                                                                                          KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTG
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                                  QHQVRMQILMIRYPSSQLGEM---SLEEHSQCECRP 126
                                                                         KVID--EEWQRTQCSPRETCVEVASELGKTTNTFFKPPCVNVFRCGGCCNEEGVMCMNTS
                                                                                                                                                                  Similarity
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Pred. No. 9.
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N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
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RR Yamada Y., Hirata Y., Nezu J., Shimane M.;

RI Submitted (JUL-1997) to the EMBL/GenBank/DDBJ databases.

RL Submitted (JUL-1997) to the EMBL/GenBank/DDBJ databases.

Clear of the results of the permeability of blood and endothelial cell growth, stimulating their proliferation and complex function in the formation of the venous and lymphatic vessels. May function in the formation of the venous and lymphatic vessels. May function in the formation of the venous and lymphatic composed lymphatic endothelium in adults. Binds and confiding the receptor (By similarity).

Classification of differentiated lymphatic endothelium in adults. Binds and confidency non-covalent and antiparallel (By similarity).

Classification of the venous and the permeability toward composed secreted forms with increased activity toward vertety of processed secreted forms with increased activity toward vertety of processed secreted forms with increased activity toward vertety of substitute bonds before secretion. The fully processed composed mostly of two VEGF homology domains (VHDs)
                                                                                                                                                                                                                                                                                                                                                                ProDom; PDUU1643;
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1
PROSITE; PS50278; PDGF_2; 1
Mitogen; Growth factor; Gly
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Rattus norvegicus (Chordata;
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAR-2002 (Rel. 41, Created)
01-MAR-2002 (Rel. 41, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
Vascular endothelial growth factor D precursor
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Pfam; PF00341; PDGF; 1.
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SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS
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                                                                                                                                                                                                                                                                                                                                                                     residues; Multigene
                                     4 (INCOMPLETE).
INTRACHAIN (BY SIMILARITY).
INTRACHAIN (BY SIMILARITY).
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INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
N-LINKED
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                                                                                                                                                                                                                                                                                                    VASCULAR ENDOTHELIAL GROWTH FACTOR D.
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Sciurognathi; Muridae; Murinae; Rattus.
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(GLCNAC. . .) (POTENTIAL).
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P97953;

P97953;

15-JUL-1998 (Rel. 36, Createu,

15-JUL-1998 (Rel. 36, Last sequence update,

15-JUL-1998 (Rel. 41, Last annotation update)

Ol-MAR-2002 (Rel. 41, Last annotation update)

Vascular endothelial growth factor C precursor (VEGF-C) (Vascular annotation)

Vascular (VEGF-C) (Fit4 ligand) (Fit4-condition)
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                         "Characterization of murine Flt4 ligand/VEGF-C."; Oncogene 15:613-618(1997).
-I- FUNCTION: Growth factor active in anaiogenesi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.,
STRAIN-BALB/C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "VEGF-C receptor binding and pattern of expression with VEGFR-3 suggests a role in lymphatic vascular development.";
Development 122:3829-3837(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Giannotti J., Finnerty
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=97164697;
Kukk E., Lymboussa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
STRAIN-BALB/C;
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Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Turner K.J., Wood C.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=97388482; PubMed=9247316;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Joukov V., Alitalo K.;
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                                                                                                                                                      systems during embryogenesis, and also in the maintenance of differentiated lymphatic endothelium in adults. Binds and activates VEGFR-2 (FIRI) and VEGFR-3 (FIR1) receptors. SUBUNIT: Homodimer; non-covalent and antiparallel. SUBCELLULAR LOCATION: Secreted.

TISSUE SPECIFICITY: Expression detected in mesenchymal cells of postimplantation embryos, particularly in the regions where the lymphatic vessels undergo sprouting from embryonic veins, such the perimetanephric, axillary and jugular regions, and in the developing mesenterium. Expressed in adult heart, brain, spleen
                                                                                                                       PTM:
                                                                                                                                                                                                                                                                                                                                                        FUNCTION: Growth factor active in angiogenesis, and endothelia cell growth, stimulating their proliferation and migration and also has effects on the permeability of blood vessels. May function in angiogenesis of the venous and lymphatic vascular function in angiogenesis of the venous and lymphatic vascular
bonds. Before secretion, a cleavage occurs between arg-227 and ser-228 producing an heterotetramer. The next extracellular stoof the processing removes the N-terminal propeptide. Finally to
                                                       variety of processed secreted forms with increased activity toward VEGFR-3, but only the fully processed form could activate VEGFR-2. VEGF-C first form an antiparallel homodimer linked by disulfide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 J., Gassaway R., Nickbarg E.,
notti J., Finnerty H., Zollner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QHQVRMQILMIRYPSSQLGEM---SLEEHSQCECRP
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                                                                                                                   Undergoes a complex proteolytic maturation which generates a
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llarity 32.3%;
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37112 MW;
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Rodentia;
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Kovacic S., Ciarletta
R., Beier D.R., Leak 1
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VEGD_HUMAN STANDARD; PRT; 354 AA (A3915; 01-MAR-2002 (Rel. 41, Created) 01-MAR-2002 (Rel. 41, Last sequence update) 01-MAR-2002 (Rel. 41, Last annotation updat (Vascular endothelial growth factor D precur
               growth factor) (FIGF) FIGF OR VEGFD.
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PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
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InterPro; IPR002400; GF_cysknot.
InterPro; IPR000072; PDGF.
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or send an email to license@isb-sib.ch).
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(Human)
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Pred. No. 8e-08;
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Achen M.G., Jeltsch M., Kukk E., Maekinen T., Vita
Alitalo K., Stacker S.A.;
"Vascular endothelial growth factor D (VEGF-D) is
tyrosine kinases VEGF receptor 2 (Flk1) and VEGF r
Proc. Natl. Acad. Sci. U.S.A. 95:548-553(1998).
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Nice E.C., Roufail S., Simpson
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MEDLINE=98140120; PubMed=9479493;
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Yamada Y., Nezu J.-I., Shimane M., Hirata Y.;
"Molecular cloning of a novel vascular endothelial growth factor,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alitalo K., Achen M.G.;
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FUNCTION: Growth factor active in angiogenesis, lymphangiogenesis and endothelial cell growth, stimulating their proliferation and migration and also has effects on the permeability of blood vessels. May function in the formation of the venous and lymphatic vascular systems during embryogenesis, and also in the maintenance of differentiated lymphatic endothelium in adults. Binds and activates VEGFR-2 (Fikl) and VEGFR-3 (Fit4) receptors.

SUBCELULIAR ICCATION: Secreted.

SUBCELLULAR ICCATION: Secreted.

TISSUE SPECIFICITY: Highly expressed in lung, heart, small intestine and fetal lung, and at lower levels in skeletal muscle,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PTM: Undergoes a complex proteolytic maturation which generates a variety of processed secreted forms with increased activity towar VEGFR-3 and VEGFR-2. VEGF-D first form an antiparallel homodimer linked by disulfide bonds before secretion. The fully processed VEGF-D is composed mostly of two VEGF homology domains (VHDs) bound by non-covalent interactions.

SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
D89630; BAA24264.1;

Y12863; CAA73370.1;

Y12865; CAA73371.1;

Y12865; CAA73371.1;

Y12866; CAA73371.1;

Y12866; CAA73371.1;

Y12868; CAA73371.1;

Y12869; CAA73371.1;

Y12869; CAA73371.1;
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Best Local
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EMBL; AJ000185; (
MIM; 300091; -...
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MEDIJRE-94076465; PubMed-8254780;
Lyttle D.J., Fraser K.M., Fleming
"Homologs of vascular endothelial
poxvirus orf virus.";
J. Virol. 68:84-92(1994).
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                        -i- FUNCTION: INDUCES ENDOTHELIAL PROLIFERATION.
-i- SUBUNIT: HOMODIMER; DISULFIDE-LINKED (BY SIMILARITY).
-i- SIMILARITY: BELONGS TO THE PDGF/YEGF FAMILY OF GROWTH FACTORS.
                                                                                                                                                                      Orf virus (strain NZ7) (OV Viruses; dsDNA viruses, no
                                                                                                                                                                                                     Vascular
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                                                                                                                                                Parapoxvirus.
NCBI_TaxID=73495;
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354 AA;
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OR 99 (IN A MINOR FORM).

VASCULAR ENDOTHELIAL GROWTH FACTOR D.
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h factor are encoded by the
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HSSP; P15692; 2VPF.
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Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
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01-0CT-1996 (Rel. 34, Created)
01-0CT-1996 (Rel. 34, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
Vascular endothelial growth factor C precursorendothelial growth factor related protein) (Vi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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                            MEDIINE=96203094; PubMed=8612600;
Joukov V., Pajusola K., Kalpainen
Saksela O., Kalkkinen N., Alitalo
EMBO J. 15:1751-1751(1996).
                                                                                                                                                     ERRATUM
                                                                                                                                                                                                          "A novel vascular endothelial growth factor, VEGF-C, the Flt4 (VEGFR-3) and KDR (VEGFR-2) receptor tyrosi EMBO J. 15:290-298(1996).
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Catarrhini;
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InterPro; IPR004153; CXCXC.
InterPro; IPR002400; GF\_cysknot.
InterPro; IPR00072; PDGF.
Pfam; PF03128; CXCXC; 5.
Pfam; PF03128; CXCXC; 5.
Pfam; PF00341; PDGF; 1.
PRINTS; PR00438; GFCYSKNOT.
PRODOM; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF\_1; 1.
PROSITE; PS00249; PDGF\_2; 1.

Mitogen;

PS00249; PDGF\_1; 1. PS50278; PDGF\_2; 1. Growth factor; Glyc

pwth factor; Glycoprotein;
pair of basic residues; Mu

residues; Multigene

Signal;

EMBL; X94216; Q EMBL; U43142; I EMBL; U58111; I HSSP; P15692; I MIM; 601528; -

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Lee J., Gray A., Yuan J., Luoh S.-M., Avraham H., Wood W.I.;
"Vascular endothelial growth factor-related protein: a ligand specific activator of the tyrosine kinase receptor Fit4.";
Proc. Natl. Acad. Sci. U.S.A. 93:1988-1992(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=97388482; PubMed=9247316; Fitz L.J., Morris J.C., Towler P., Wang J., Gassaway R., Nickbarg E., Giannotti J., Finnerty H., Zollner
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Saksela O., Kalkkinen N., Alitalo K.;
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MEDLINE-88174698; PubMed-2832727;
MEDLINE-88174698; PubMed-2832727;
Medline-88174698; PubMed-2832727;
Mol. Cell. Biol. 8:571-577(1988).
                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE-88144463; Bonthron D.T., Mor
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Mammalia; Eutheria;
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-NOV-1986 (Rel. 03, Created)
01-NOV-1986 (Rel. 03, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
Platelet-derived growth factor, A chain precu
 growth
                                                                                         SEQUENCE FROM N.A. MEDLINE-86203630;
                                                     Betsholtz C.,
Urdea M.S., E
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Morton C.C., Orkin S.H., Collins T.;
Ived growth factor A chain: gene structure,
basis for alternative mRNA splicing.";
cad. Sci. U.S.A. 85:1492-1496(1988).
                                                     Johnsson A.,
idy R., Shows
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R-S: NO PROTEDLYTIC PROCESSING AND LEFFECT ON VEGFR-2 AND VEGFR-3.

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                                                   Philpott K., Mellor A.L., 1
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   EMBL;
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                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bloinformatics and the EMBL outstation—the European Bloinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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Andersson M., Oestman A., Baeckstroem G., Hellman U.,
George-Nascimento C., Westermark B., Heldin C.-H.;
"Assignment of interchain disulfide bonds in platelet-derived factor (PDGF) and evidence for agonist activity of monomeric P J. Biol. Chem. 267:11260-11266(192).
-II- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=87287248; PubMed=3614364;
Collins T., Bonthron D.T., Orkin S
"Alternative RNA splicing affects
growth factor A chain.";
Nature 328:621-624(1987).
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[7]
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                                                                                                                                                                                                                                                                                                                                                CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND. SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF MONIDENTICAL (A AND B) CHAINS. HOWODIMERS OF A AND B CHAINS ARE IMPLICATED IN TRANSFORMATION PROCESSES.

ALTERNATIVE PRODUCTS: 2 ISOFORMS; a long form (shown here) and a short form; are produced by alternative splicing.

DOMAIN: The long form contains a basic insert which acts as a cell
                                                                                                                                                                                                                                               PDGF RECEPTOR.

SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.

DATABASE: NAME=R&D Systems' cytokine mini-reviews: PDGF;

WWW-"http://www.rndsystems.com/asp/g_sitebuilder.asp?bodyId=220"
 M21571;
X03795;
X06374;
M20494;
M20489;
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M20490;
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PubMed=3614363;
Tave M., Kaplow
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her L., Eichner W.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 42:47-52(1993).
                                                                                                                                                                                                                                                                                                                      в-в,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Z.Y., Tong
5' region
                                                                                                                                                                                                                                                                                                                      AS WELL AS A-B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S.H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          function
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ween human glial A-chains.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Weich H.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B.D., I
of the
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PDGA_RABIT
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OS Orycto
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                                                  PGA_RABIT STAN
P34007;
01-FEB-1994 (Rel. 2
01-FEB-1994 (Rel. 2
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Platelet-derived gr
(PDGF-1).
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CONFLICT
SEQUENCE
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CHAIN
                Eukaryota; Metazoa; Chordata; C:
Mammalia; Eutheria; Lagomorpha;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PIR;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL;
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EMBL;
EMBL;
EMBL;
          NCBI_TaxID=9986;
                                   Oryctolagus
                                                                                                                                                                                                                                                                                                                                                                                                  Glycoprotein;
Signal.
                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00249; PDGF_1; 1. PROSITE; PS50278; PDGF_2; 1. Glycoprotein; Mitogen; Growth
                                                                                                                                                                                                                                                                                                                                                                                                                                     PRINTS; PRO0438; GFCYSKNOT ProDom; PD001629; PDGF; 1. SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MIM;
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                                              PDGFA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro;
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                                                                                                                                                       153
                                                                                                                                                                        102
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                                                                                                                                                                                          94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A28964; PFHUG1.
B28964; B28964.
                                                                                                                                                     AKVEYVRKKPKLKEVQVRLEEHLECACATTSLNPDYREEDTGRPRESGKKRKRKRLKP
                                                                                                                                                                LMIRY----PSSQLGEMSLEEHSQCEC-------RP-----KKKDSAVKP
                                                                                                                                                                                                        ATCOPREVV -- VPLTVELMGTVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          173430;
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Pro; IPR000072; PDGF.
PF00341; PDGF; 1.
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                                                                                                                                                                                                                          34;
                                                                                                                                                                                                                                     Similarity
          cuniculus (Rabbit).
Metazoa; Chordata; Craniata; Vertebrata;
Tagomorpha; Leporidae; Oryctola
                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAA60045.1;
AAA60046.1;
AAA60046.1;
                                                                                                                                                                                                                                                                                                                                                                                                         Mitogen;
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                                                                                                           STANDARD;

    28, Created)
    28, Last sequence upol
    41, Last annotation upol
    41, Factor, A chair

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86
211
162
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28.8%;
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                                                                                                                                                                                                                                                               INTERCHAIN.
INTERCHAIN.
N-LINKED (GLCNAC. ..).
N-LINKED (GLCNAC. ..).
GRP -> DVR (IN SHORT ISOFORM).
MISSING (IN SHORT ISOFORM).
TAH -> TRD (IN REF. 2).
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                                                                                                                                                                                                                                                                                                                                   PLATELET-DERIVED RECEPTOR BINDING BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                    Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                REMOVED
                                                                                                                                                                                                                                                                                                                                                                                                          factor; Platelet;
                                                                                                                                                                                                                           Mismatches
                                                             chain precu
                                                                                                                                                                                                                                   129; DB
No. 2.9e-
                                                                               update)
                                                                                                                                                                                                                                                                                                                                                                                 BY PROTEOLYSIS.
                                                                                                          213
                                                             precursor
                                                                                                          A
                  Oryctolagus
                                                                                                                                                                                                                           35;
                                                                                                                                                                                                                                                                                                                                                              SITE (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                         GROWTH FACTOR,
                                                                                                                                                                                                                                                                                                                                                                                                          Alternative
                                                                                                                                                                                                                                            Length 211;
                                                                                                                                                                                                                           Indels
                                                              (PDGF
                            Euteleostomi;
                                                              A-chain)
                                                                                                                                                                                                                           28;
                                                                                                                                                                                                                                                                                                                                                                                                          splicing;
                                                                                                                                                                                                                                                                                                                                                                       A CHAIN
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RESULT 2
PDGA_RAT
ID PDGA
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Best Local S
Matches 34
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InterPro; IPRO00072; pDGF.
Pfam; PF00341; PDGF; 1.
PRANTS; PR00438; GFCYSKNOT.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PDGA_RAT
P28576;
01-DEC-1992
01-FEB-1994
01-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                            Glycoprotein;
Signal.
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Identification of three types of PDGF-A chain gene transcripts in rabbit vascular smooth muscle and their regulated expression during development and by angiotensin II.";

Biochem. Biophys. Res. Commun. 184:811-818(1992).

-i- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND.

-i- SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF MONIDENTICAL (A AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN
                                                                                                                                                                                                                                                                                                                                          DISULFID
DISULFID
DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                 VARSPLIC
VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                       SITE
                                                                                                                                                                                                                                                                                                                                                                                                                    PROPEP
CHAIN
                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nakahara K.-I., Nishimura H., K
Ohkubo A., Yazaki Y., Nagai R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
TISSUE-Vascular smooth muscle;
MEDLINE-92246970; PubMed-1575749;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PIR; JS0735; JS0735.
PIR; PS0387; PS0387.
PIR; JN0248; JN0248.
                                                                                                                                                                                                                                                                                                       VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PS00249; PDGF_1; 1. PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HSSP; P01127; 1PDG
                                                                                                                 129
                                                                                                                                                                 71
                                                                                                                                                                                          19
                                                                                                                                       76
                                                                           28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ALTERNATIVE PRODUCTS: 3 ISOFORMS; A1, A2 (SHOWN HEE PRODUCED BY ALTERNATIVE SPLICING. INDUCTION: THE FORM A3 IS SELECTIVELY INDUCED BY AN MISCELLANEOUS: A-A AND B-B, AS WELL AS A-B, DIMERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED TRANSFORMATION PROCESSES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PDGF RECEPTOR
                                                                                                                               QRCGGCCPDDGLECVPTGQHQVRMQILMIRY----PSSQLGEMSLEEHSQCEC
                                                                                                                                                                 KRCTGCCNTSSVKCQPSRVHHRSVKVAKVEYVRKKPKLKEVQVRLEEHLECAC
                                                                                                                                                                                        AQAPVSQPDAPGHQRKVVSWIDVYTRATCQPREVV--VPLTVELMGTVAKQLV-PSCVTV 75
                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                               213
 (Rel.
(Rel.
(Rel.
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                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mitogen;
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                                                    STANDARD;
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41,
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89
213
162
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                                                                                                                                                                                                                                                                              24005
                                                                                                                                                                                                                             17.78;
                          Created)
              Last sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Growth
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                                                                                                                                                                                                                                                                               MW;
                                                                                                                                                                                                                  24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     THE PDGF/VEGF FAMILY OF GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                                                                       BY SIMILARITY.

REMOVED BY PROTEOI

PLATELET-DERIVED O

RECEPTOR BINDING
                                                                                                                                                                                                                            Score 127.5;
Pred. No. 4.
                                                                                                                                                                                                                                                                                                                INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . . ) (POTENTIAL)
GRR -> DVR (IN ISOFORM A1).
MISSING (IN ISOFORM A1).
                                                                                                                                                                                                                                                                                           RRRESGKKKKKKLRPT -> TLLPAPGGVHPQGCLRAHDG CQSSRNHMQALGWKKKM (IN ISOFORM A3).
                                                                                                                                                                                                                                                                                                                                                                                 BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kuro-O M., Takewaki S.-I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      factor; Platelet;
                                                                                                                                                                                                                                                                                28A9B7E50487F4C5
                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                    BY PROTEOLYSIS (BY SIMILARITY) I-DERIVED GROWTH FACTOR, A CHAI
                                                    204
                                                                                                                                                                                                                             4.1e-06;
                                                    æ
                                                                                                                                                                                                                                           DB 1;
                                                                                                                                                                                                                   46;
                                                                                                                                                                                                                                                                                                                                                                                                       GROWTH FACTOR, A SITE (POTENTIAL).
                                                                                                                                                                                                                                                                                CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alternative splicing;
                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BY ANGIOTENSIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HERE)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A3; ARE
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|X
                                                                                                                                                                                                                  Gaps
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Last annotation

update)

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MEDLINE-93225589; PubMed-8469035;
Szabo P., Weksler B.B.;
Szabo P., Weksler D., Whittington E., Weksler B.B.;
"The age-dependent proliferation of rat aortic smooth muscle cells is independent of differential splicing of PDGF A-chain mrna.";
Mech. Ageing Dev. 67:79-89(1993).

-1- FUNCTION: PLATELET-DERLYED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUNDING IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUNDING AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN TRANSFORMATION PROCESSES.
                                                                                                  EMBL;
                                                                                                                                            EMBL;
                                                                                                                                                                                                                                                                                                                                                           This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
MEDLINE-93191115; PubMed-8447423;
Katayose D., Ohe M., Yamauchi K.,
Shibahara S., Takishima T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                         use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE OF 58-196 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A-chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Increased expression of PDGF I hypoxic pulmonary hypertension
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Biochim.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Herren B., Weyer K.A., Rouge M., Loetscher "Conservation in sequence and affinity of ligands and receptors.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (PDGF-1).
PDGFA OR RPA1
                                                                                                                                                                                                                                                                                                                 the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-FISCHER 344; TISSUE-Smooth muscle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 8-204
MEDLINE-93305723;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Platelet-derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Cloning
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Am. Soc. Nephrol.
                                                                                                                                                                                                                                                                                                          s SWISS-PROT entry is copyright. It is produced through a cween the Swiss Institute of Bioinformatics and the EMBL European Bioinformatics Institute. There are no restrict
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FORM PREDOMINATES IN YOUNG (1 DAY OLD) RATS WHILE BECOMES MORE PREVALANT DURING AGING.

DOMAIN: The long form contains a basic insert which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ALTERNATIVE PRODUCTS: 2 isoforms; a long form (shown here) and short form; are produced by alternative splicing. DEVELOPMENTAL STAGE: IN KIDNEY EPITHELIAL TISSUES, THE SHORTER FORM PREDOMINATES IN YOUNG (1 DAY OLD) RATS WHILE THE LONGER FORM
                                                                                                                                                                                                                                                                                                                                                                                                PDGF RECEPTOR.
SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF
                                                                                                                                                                                                                                                                                                                                                                                                                                        retention signal.
MISCELLANEOUS: A-A AND B-B,
                                                                                                L06894;
Z14120;
D10106;
L06238;
S57864;
               Pro; IPR002400; GF_cysknot.
Pro; IPR000072; PDGF.
PF00341; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Feng L., Tang W
g and expression
.";
PR00438;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Biophys. Acta 1173:294-302(1993).
                                                                                              ; AAB59693.1;
; CAA78490.1;
; BAA00987:1;
; AAA41932.1;
; AAB26134.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 264:L100-L106(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                growth
GFCYSKNOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PubMed-8318539;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (SHORT FORM).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3:622-622(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Σ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PDGF A- and
                                                                                                     2.2.2.2.2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wilson C.B.; rat platelet-derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (SHORT FORM).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata; Veri
Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                                                                                          AS
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                                                                                                                                                                                                                                                                                                                                                                                                                                            AS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Vertebrata; Euteleostomi;
thi; Muridae; Murinae; Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human
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n and
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                                                                                                                                                                                                                                                                                                                                       collaboration -
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RESULT 29
PDGA_MOUSE
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Best Local S
Matches 31
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01-OCT-1996
01-MAR-2002
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CARBOHYD
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SEQUENCE
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SIGNAL
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SMART; S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VARSPLIC
VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE; PS00249; PDGF_1; 1. PROSITE; PS50278; PDGF_2; 1.
                                      embryogenesis.";
Dev. Biol. 138:114-122(1990)
                                                                 Mercola M., Wang C., F
Stiles C., Bowen-Pope
                                                                                                                                                                                                                             Eukaryota;
Mammalia; E
                                                                                                                                                                                                                                                                                                                   PDGA_MOUSE P20033;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CONFLICT
                                                                            MEDLINE=90169294; PubMed=2155144;
Mercola M., Wang C., Kelly J., Brownlee
                                                                                                 STRAIN-F9;
                                                                                                         SEQUENCE FROM N.A.
                                                                                                                            Growth Factors 6:303-313(1992).
                                                                                                                                              conservation of gene structure,
                                                                                                                                                                    Rorsman F., Betsholtz
                                                                                                                                                                            MEDLINE=94031105; PubMed=1340209;
                                                                                                                                                                                                SEQUENCE FROM N.A. (LONG
                                                                                                                                                                                                                  NCBI_TaxID=10090
                                                                                                                                                                                                                                              Mus musculus (Mouse)
                                                                                                                                                                                                                                                           PDGFA.
                                                                                                                                                                                                                                                                              Platelet-derived
                                                        'Selective expression
                                                                                                                                                         "Characterization of
                                                                                                                                                                                                                                                                    (PDGF-1).
                                                                                                                                                                                                                                                                                                                                                                             153
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FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE
                                                                                                                                                                                                                                                                                                                                                                             AKVEYVRKKPKLKEVQVRLEEHLECAC - - - - ATSNLNPD
                                                                                                                                                                                                                                                                                                                                                                                                                              ATCQPREVV--VPLTVELMGTVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
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                                                                                                                                                                                                                            Eutheria;
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204
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(Rel. 34, Last sequence update)
(Rel. 41, Last annotation update)
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23307
                                                                                                         (SHORT FORM).
                                                                                                                                                                                                                             Chordata;
Rodentia;
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85
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1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17.7%;
31.3%;
                                                                                                                                                         the mouse PDGF
                                                         D.;
of PDGF A and its receptor during early mouse
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INTERCHAIN (BY SIMILARITY).

N-LINKED (GLORAC...) (BY SIMIL

GRR -> DVR (IN SHORT ISOFORM).

MISSING (IN SHORT ISOFORM).

KRSIEEALPAVCKTRTVIYEIPRSQVD -> F
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Pred. No. 4.5e
20; Mismatches
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I -> T (IN REF. 3).
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BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BY SIMILARITY
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                                                                                                                                                                                                                           Craniata; Ver
Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             factor;
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                                                                                                                                                nucleotide
                                                                                                                                                                                                 FORMS).
                                                                                                                                                         A-chain gene.
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DERIVED GROWTH
BINDING SITE (P
                                                                              ი,
                                                                                                                                                                                                                                       Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                             precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 1;
.5e-06;
                                                                                                                                                                                                                                                                                                                             A
                                                                                                                                               sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                . 3).
742C CRC64;
                                                                                                                                                                                                                             Muridae;
                                                                              Jackson-Grusby
                                                                                                                                                                                                                                                                                                                                                                                                                                                         36;
                                                                                                                                                                                                                                                                                                                                                                             187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
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                                                                                                                                                         Evolutionary
                                                                                                                                                                                                                                                                             (PDGF
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                                                                                                                                                                                                                             Murinae;
                                                                                                                                                alternative
                                                                                                                                                                                                                                                                              A-chain)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            splicing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REVLRKPFPQ
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IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEALS THE WOUND. SUBJULT: ANTI-PARALLEL DISULFIDE-LINKED DIMER OF WONLDENTICAL (A AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN TRANSFORMATION PROCESSES.

ALTERNATIVE PRODUCTS: 2 isoforms; a long form (shown here) and a

TIVE PRODUCTS: 2 isoforms; a long form (shown here) and a orm; are produced by alternative splicing.

The long form contains a basic insert which acts as a ce.

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short form; DOMAIN: The

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Matches
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Best Local Similarity
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DISULFID
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DISULFID
                                                                                                                                                                                                                                                    VARSPLIC CONFLICT
                                                                                                                                                                                                                                                                                          CARBOHYD
VARSPLIC
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Signal
SIGNAL
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between
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EMBL;
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EMBL;
EMBL;
EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                              SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRINTS; PR00438; GFCYSKNOT. ProDom; PD001629; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR002400;
InterPro; IPR000072;
Pfam; PF00341; PDGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the European Bloinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MGD; MGI:97527;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PIR; A37359;
102 LMIRY----PSSQLGEMSLEEHSQCECRPKKKDSAVKPD 136
                                        94
                                                                              <u>4</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1. S66873; AAB28740.2; S66868; AAB28740.2; S668670; AAB28740.2; S66871; AAB28740.2; S66872; AAB28741.2; S66868; AAB28741.2; S66869; AAB28741.2; S66870; AAB28741.2; S66871; AAB28741.2; S66871; AAB28741.2; S66871; AAB28741.2; S66872; AAB28741.2; S6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MISCELLANEOUS: A-A AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             retention
                                        AVCKTRTVIYEIPRS-QVDPTSANFLIWPPCVEVKRCTGCCNTSSVKCQPSRVHHRSVKV 152
                                                                            ATCOPREVV - - VPLTVELMGTVAKQLV - PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P01127;
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                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A37359.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mitogen;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pdgfa
                                                                                                                                                                                                                174
24102
                                                                                                                                    17.7%;
31.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PDGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GF_cysknot.
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                                                                                                                    20;
                                                                                                                                                                                                                                                INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . ).
GRR -> DVR (IN SHORT ISOFORM).
MISSING (IN SHORT ISOFORM).
V -> I (IN REF. 2).
                                                                                                                Score 127; DB 1;
Pred. No. 4.6e-06;
0; Mismatches 36;
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AC4345A10ECF4B39 CRC64;
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T-DERIVED GROWTH FACTOR, A
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MEDIJINS-87146463; PubMed=3822831;
wan den Ouweland A.M.W., van Groningen J.J.M., Schalken
van Neck H.W., Bloemers H.P.J., van de Ven W.J.M.;
"Genetic organization of the c-sis transcription unit.";
Nucleic Acids Res. 15:959-970(1987).
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Submitted (NOV-1996) to the EMBL/GenBank/DDBJ databases.

I- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESSENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND.

-!- SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF NONIDENTICAL (A AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN
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PROSITE; PS50278; PDGF_2;
Mitogen; Growth factor; PJ
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Felis silvestris catus (Cat).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
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InterPro; IPR000072;
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HSSP; P01127; 1PDG
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16-OCT-2001
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SMO0141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS00278; PDGF_2; 1.
Oncogene; Growth factor.
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21-JUL-1986 (Rel. 01, D1-MAR-2002 (Rel. 41, I
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Proc. Natl. Acad. Sci. U.S.A. 80:731-735(1983).
-I- SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
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Devare S.G., Reddy E.P., Law J.D., Robbins K.C., Aa "Nucleotide sequence of the simian sarcoma virus gedemonstration that its acquired cellular sequences
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P01127; P78431;
21-JUL-1986 (Rel. |
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16-OCT-2001 (Rel. |
                                  Simon M.-P., Pedeutour F., Sirvent N., Grosgeorge J., Minoletti F., Coindre J.-M., Terrier-Lacombe M.-J., Mandahl N., Craver R.D., Blin N., Sozzi G., Turc-Carel C., O'Bbien K.P., Kedra D., Fransson I., Guilbaud C., Dumanski J.P.;

"Deregulation of the platelet-derived growth factor B-chain gene via fusion with collagen gene COLIA1 in dermatofibrosarcoma protuberans and giant-cell fibroblastoma.";
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PDGFB OR SIS.
                                                                                                                                                                                                                                                                                                                                                                "Oncogenic potential of the human transcriptional unit.";
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MEDLINE=85296313; PubMed=4033772;

Collins T., Ginsburg D., Boss J.M., Orkin S.H., Pober J.S.;

Collins T., Ginsburg D., Boss J.M., Orkin S.H., Pober J.S.;

Collins T., Ginsburg D., Boss J.M., Orkin S.H., Pober J.S.;

Collins T., Ginsburg D., Boss J.M., Orkin S.H., Pober J.S.;

MELUTE B chain: cDNA cloning and structural analysis.";

MELUTE 316:748-750(1985).
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Science 225:636-639(1984).
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Burgess J., Odell C.
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Rao C.D., Igarashi H., Chiu I.-M., Robbins K.C., Aaronson S.
"Structure and sequence of the human c-sis/platelet-derived factor 2 (SIS/PDGF2) transcriptional unit.";
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"Transforming potential of human
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Josephs S.F., Ratner L., Clarke M.F.,
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SEQUENCE OF 26-241 FROM
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MEDLINE=85269623; PubMed=2991848;
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MEDLINE-93010987; PubMed-1396586; Oefner C., D'Arcy A., Winkler F.K., "Crystal structure of human platelet EMBO J. 11:3921-3926(1992).
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Craig S., Drummond A.H., Edwards R.M., Fallon A., Green
Hellewell P.G., Kirwin P.M., Nayee P.D., Richardson S.J.
Chahwala S.B., Snarey M., Winslow D.,
"Two PDGF-B chain residues, arginine 27 and isoleucine 3
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Westermark B., Heldin
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WWW-"http://www.rrdsystems.com/asp/g_sitebuilder.asp?bodyId-220"
WWW-"http://www.regranex.com/"
                                                                                                                                           FUNCTION: PLATELET DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND. SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF NONIDENTICAL (A AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN
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SIMILARITY: BELONGS TO THE PDGF/VEGF DATABASE: NAME-R&D Systems' cytokine
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elet-derived growth factor.";
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h H.A., Sebald W., Schairer H.
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                                                                                                                                                                                                                                                                                              Pharmaceutical;
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InterPro; IPR000072;
Pfam; PF00341; PDGF;
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K01918 AAA60552.1;
K01398 AAA60552.1;
K01398 AAA60552.1;
K01399 AAA60552.1;
K01399 AAA60552.1;
K01399 AAA60552.1;
K01400 AAA60552.1;
K01400 AAA60553.1;
K02811 CAA26579.1;
K01914 AAA60553.1;
K01914 AAA98793.1;
K01914 AAA98793.1;
K01914 AAA98793.1;
K01914 AAA98793.1;
K01914 AAA98793.1;
K01916 AAA98793.1;
K01916 CAA25229.1;
K03702 CAA27333.1;
K01916 CAA25228.1;
K00561; CAA25228.1;
K00561; CAA25228.1;
K00561; CAA25228.1;
K00561; CAA25228.1;
K00561; CAA25228.1;
K00561; CAA25228.1;
K00561; CAA67262.1;
QVRKIEIVRKKPIFKKATVTLEDHLACKC
                                         AECKTRTEVFEISRRLIDRTNANFLVWPPCVEVQRCSGCCNNRNVQCRPT---QVQLRPV
                                                                                                                                                                                                                                                                                                                                          ; PD001629; PDGF; SM00141; PDGF; 1.
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                                                                                                   Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         email to license@isb-sib.ch).
                                                                                        Conservative
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34.8%;
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PDGF.
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                                                                                       Pred. No. 1.40
7; Mismatches
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                                                                                                  e 123;
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 180
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                                                                                                                                    REF.
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les 29;
                                                                                                                                                                                                                                                                                                         Platelet;
                                                                                                                                                                                                                             RECEPTOR
                                                                                                                                   3).
11).
                                                                                                                                                                                                                                                             GROWTH FACTOR,
                                                                                                           Length
                                                                                                                                                                                                                             BINDING BINDING
                                                                                                                                                                                                                                                                                                         Signal;
                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  restrictions
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PDGA\_XENLA P13698; 01-JAN-1990 01-JAN-1990

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Created)
Last sequence

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 growth factor A-chain.";

Nucleic Acids Res. 18:680-680(1990).

Nucleic Acids Res. 18:680-680(1990).

It function: platelet oberived growth factor is a potent mitogen for cells of mesenchymal origin. Binding of this growth factor to its affinity receptor elicits a variety of cellular responses. It is released by platelets glown wounding and plays an important role in stimulating adjacent cells to grow and thereby Heal the wound.

In Stimulating adjacent cells to grow and thereby heal the wound.

Subunit: antiparallel disulfide-linked dimer of monidentical (A and B) Chains. Homodimers of a and B Chains are implicated in
                                                                                                                                   Signal
SIGNAL
                                                                                                                                                                                                                                                                                      EMBL; M23237; AAA49927.1; -.
EMBL; M23238; AAA49928.1; -.
EMBL; X17545; CAA35583.1; -.
PIR; S08220; S08220.
HSSP; P01127; 1PDG.
                                                                                                                                                                    PROSITE; PS00249; PDGF_1; 1. PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                 PRINTS; PR00438; GFCYSKNOT.
ProDom; PD001629; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mercola M., Melton D.A., Stiles C.D.;
"Platelet derived growth factor A chain is maternally
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE=Oocyte;
MEDLINE=88321676; PubMed=3413486;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (PDGFA).
Xenopus laevis (African
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAR-2002 (Rel. 41, Last annotation update)
                                                                                                                    PROPEP
                                                                                                                                                            Glycoprote:
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                                                                                                                                                                                                                                                          InterPro; IPR002400; GF_cysknot.
InterPro; IPR000072; PDGF.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ALTERNATIVE PRODUCTS: 2 isoforms; a long form (s short form; are produced by alternative splicing DOMAIN: The long form contains a basic insert wh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 retention signal.
MISCELLANEOUS: A-A AND B-B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PDGF RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TRANSFORMATION PROCESSES.
                                                                                                                                                                                                                                          PF00341; PDGF;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   embryos.";
241:1223-1225(1988).
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                                                                                                                                                            Mitogen;
                                                                                                                                                                                                      PDGF; 1
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.Y., Deuel T.F.;
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                                                                                                                                                            Growth
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PLATELET-DERIVED GROWTH FACTOR,
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
INTERCHAIN (BY SIMILARITY).
INTERCHAIN (BY SIMILARITY).
N-LINKED (GLURAC. . .) (PROBABI
GFF -> DUR (IN SHORT ISOFORM).
                                                                                                                    REMOVED
                                                                                                                                                          factor; Platelet; Alternative
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                 (PROBABLE).
                                                                                                    FACTOR, A CHAIN
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Matches 28
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CONFLICT
CONFLICT
SEQUENCE
                                     between the Swiss Institute of Bioinformat
the European Bioinformatics Institute. The
up non-profit institutions as a
modified and this statement is not removed.
entities requires a license agreement (See l
or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                         Lindner V., Giachelli C.M., Schwartz S.M., Reidy M.A.;

"A subpopulation of smooth muscle cells in injured rat arteries expresses platelet-derived growth factor-B chain mRNA.";

Circ. Res. 76:951-957(1995).

-i- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.

MEDLINE=93305723; PubMed=8318539;
Herren B., Weyer K.A., Rouge M., Loetscher "Conservation in sequence and affinity of h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-FEB-1994 (Rel. 28, La 01-OCT-1996 (Rel. 34, La Platelet-derived growth
                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                     <del>:</del>
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                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=95277908; PubMed=7758166; Lindner V., Giachelli C.M., Schwa
                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-SPRAGUE-DAWLEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE OF 74-182 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Biochim. Biophys. Acta 1173:294-302(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ligands and receptors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rattus norvegicus (Rat).
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                                                                                                                                                     PDGF RECEPTO
                                                                                                                                                                                                                                     IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WO MAY HAVE A CHEMOTACTIC ROLE IN INTIMAL THICKENING.
SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIWER OF NONLDENTICAL AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN
                                                                                                                                                                               TISSUE SPECIFICITY: EXPRESSED IN A DISTINCT OF SMOOTH MUSCLE CELLS IN INJURED ARTERIES. MISCELLANEOUS: A-A AND B-B, AS WELL AS A-B,
                                                                                                                                                                                                                         TRANSFORMATION PROCESSES
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Z14117;
L40991;
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28; Conservative
                                                                                                                                                                    RECEPTOR.
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(Rel. 28, Last sequence up)
(Rel. 34, Last annotation)
 CAA78487.1;
AAA70048.1;
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Rodentia;
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Pred. No. 3.3e
18; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MISSING (IN SHORT ISOFORM MISSING (IN REF. 2).
Q -> R (IN REF. 2).
; E3E724FCF67C2FB2 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                       PDGF/VEGF FAMILY OF GROWTH FACTORS
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B chain precursor (PDGF B-chain)
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.3e-05;
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01-JUL-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NON_TER
SEQUENCE
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CHAIN
PROPEP
SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mitogen;
                                                                                            Bonthron D.T., Sultan P., Collins T.;

"Structure of the murine c-sis proto-oncogene (Sis, PDGFB) encoding the B chain of platelet-derived growth factor.";

Genomics 10:287-292(1991).

-i- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON MOUNDING AND PLAYS AN IMPORTANT ROLE
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HSSP; P01127; 1PDG.
InterPro; IPR000072;
Pfam; PF00341; PDGF;
                                                                                                                                                                             SEQUENCE FROM N.A. MEDLINE=91257844; PubMed=2045107;
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                                                                                                                                                                                                                          Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                          PDGFB OR SIS.
                                                                                                                                                                                                                                                                    Platelet-derived (PDGF-2) (c-sis)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIGNAL
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                                                                                                                                                                                                               NCBI_TaxID=10090;
                                                                                                                                                                                                                                               Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                       01-JUL-1993
16-OCT-2001
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                                                     IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND SUBBUNT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF NONIDENTICAL (A AND B) CHAINS HOWODIMERS OF A AND B CHAINS ARE IMPLICATED IN TRANSFORMATION PROCESSES.
                        SIMILARITY:
                                          MISCELLANEOUS: A-A
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  SWISS-PROT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SM00141; PDGF; 1.
E; PS00249; PDGF_1; 1.
E; PS50278; PDGF_2; 1.
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32; Conser
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entry
                      BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS.
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Rodentia;
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INVOLVED IN RECEPTOR BINDING.
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INTERCHAIN (BY SIMILARITY).
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Pred. No. 9.56
9; Mismatches
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Sciurognathi; Muridae;
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                                                               B_SHEEP ST/
PDGB_SHEEP ST/
095229;
01-NOV-1997 (Rel.
01-NOV-1997 (Rel.
01-NOV-1997 (Rel.
Platelet-derived (
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Pfam; PF00341; PDGF; 1.
PRINTS; PR00473
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the Euro
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CHAIN
        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pec
                              PDGFB.
Ovis aries (Sheep).
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PROSITE; PS50278; PDGF_2; 1.
Mitogen; Growth factor; Prot
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InterPro; IPR002400; (
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an email to license@isb-sib.ch).
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pean Bioinformatics Institute. There are no rest
non-profit institutions as long as its content
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                                                               Last sequence update)
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th factor, B chain precu
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PLATELET-DERIVED GROWI
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           Pecora;
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                      Euteleostomi;
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Woodall C.J., Zhang Z., Watt N.J.;
Woodall C.J., Zhang Z., Watt N.J.;
Woodall C.J., Zhang Z., Watt N.J.;
Woodall C.SEP-196) to the EMBL/GenBank/DDBJ databases.
Submitted (SEP-196) to the EMBL/GenBank/DDBJ databases.

-i- FUNCTION: PLATELET-DERIVED GROWTH FACTOR IS A POTENT MITOGEN FOR CELLS OF MESENCHYMAL ORIGIN. BINDING OF THIS GROWTH FACTOR TO ITS AFFINITY RECEPTOR ELICITS A VARIETY OF CELLULAR RESPONSES. IT IS RELEASED BY PLATELETS UPON WOUNDING AND PLAYS AN IMPORTANT ROLE IN STIMULATING ADJACENT CELLS TO GROW AND THEREBY HEAL THE WOUND.

-i- SUBUNIT: ANTIPARALLEL DISULFIDE-LINKED DIMER OF NONIDENTICAL (A AND B) CHAINS. HOMODIMERS OF A AND B CHAINS ARE IMPLICATED IN TRANSFORMATION PROCESSES.
VEGC_RAT STANDARD; PRT; 126 AA. 035757; 01-MAR-2002 (Rel. 41, Created) 01-MAR-2002 (Rel. 41, Last sequence update) 01-MAR-2002 (Rel. 41, Last annotation update) Vascular endothelial growth factor C precurso.
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between
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ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
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InterPro; IPR000072; PDGF.
Pfam; PF00341; PDGF; 1.
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                                                                                                                                                                                                                                                                                      MIRYPSS---
                                                                                                                                                                                                                                                                                                                              AECKTRTEVSEISRRLIDRTNANFLVWPPCVEVQRCSGCCNNRNVQCRPTQVQDRKVQVK 154
                                                                                                                                                                                                                                                                                                                                                                    ATCOPREVVVPLTVELMG-TVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PS00249; PDGF_1; 1.
PS50278; PDGF_2; 1.
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PLATELET-DERIVED GROWTH FACTOR, B
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         factor C precursor
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Pred. No. 0.00047;
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N-LINKED (GLCNAC. . .) (POTH:
37BELEC12E7D2863 CRC64;
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         (VEGF-C) (Vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 241;
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RESULT 38 DNJ2\_MYCLE

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VSVYRCGGCCNSEGLQCMNTSTGYLSKTLFEITVPLSQGPKPVTISFANHTSCRCMSK VTVQRCGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLGE---MSLEEHSQCECRPK

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73 μ.

Matches Query Match Best Local

Similarity

14.5%;

Conservative

9;

Score 104.5; Pred. No. 0.00 9; Mismatches

.00056; DB 1; 25;

Indels Length

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CARBOHYD
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Mandriota S.J., Pepper M.S.;
Submitted (JUN-1997) to the EMBL/GenBank/DDBJ databases.

-I- FUNCTION: Growth factor active in angiogenesis, and endotheliated the submitted of the permeability of blood vessels. May function in angiogenesis of the venous and lymphatic vascular systems during embryogenesis, and also in the maintenance of systems during embryogenesis, and also in the maintenance of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                  proDom; pD001629; pDGF; 1.
SMART; SM00141; pDGF; 1.
pROSITE; pS50278; pDGF_2; 1.
Mitogen; Growth factor; Glyc
                                                                                                                                                                                                                                                                                                                                                                         modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
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                                                                                                                                                                 CHAIN
                                                                                                                                                                               Cleavage on NON_TER
                                                                                                                                                                                                                                                                                      InterPro; IPR000072; PDGF.
Pfam; PF00341; PDGF; 1.
                                                                                                                                                                                                                                                                                                                     EMBL; AF010302; AAB63248.1;
HSSP; P15692; 2VPF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     endothelial growth factor related protein) (VRP) (Flt4 ligand) (Flt4-
                                          CARBOHYD
                                                                                                                                                  PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     L) (Fragment).
                       NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    variety of processed secreted forms with increased activity toward VEGFR-3, but only the fully processed form could activate VEGFR-2. VEGF-C first form an antiparallel homodimer linked by disulfide bonds. Before secretion, a cleavage occurs between arg-227 and ser-228 producing an heterotetramer. The next extracellular step of the processing removes the N-terminal propeptide. Finally the mature VEGF-C is composed mostly of two VEGF homology domains (VHDs) bound by non-covalent interactions (PW eimilarian).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             systems during embryogenesis, and also in the maintenance differentiated lymphatic endothelium in adults. Binds and activates VEGFR-2 (Flk1) and VEGFR-3 (Flt4) receptors. SUBUNIT: Homodimer; non-covalent and antiparallel. SUBCELLULAR LOCATION: Secreted.
SUBCELLULAR LOCATION: Secreted.
PTM: Undergoes a complex proteolytic maturation which generated forms with increased activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (VHDs) bound by non-covalent interactions (By similarity). SIMILARITY: BELONGS TO THE PDGF/VEGF FAMILY OF GROWTH FACTORS
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                                                                                                                                                                                                                  Glycoprotein;
       ¥.
                                                                                                                                                                                                residues; Multigene family.
                                  POTENTIAL.
BY SIMILARITY.
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INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . .) (POTEN N-LINKED (GLCNAC. . .) (POTEN N-LINKED (GLCNAC. . .) (POTEN N-LINKED (GLCNAC. . .) (POTEN N-LINKED (GLCNAC. . .)
                                                                                                                                                                 VASCULAR ENDOTHELIAL GROWTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Rat
       8F365AFBC4E037B0 CRC64;
                                                      (POTENTIAL)
                                        (POTENTIAL)
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Wheeler P.R., Honore N., Garnler T., Churcher C., Harris D., Mungall K., Basham D., Brown D., Chillingworth T., Connor R., Davles R.M., Devlin K., Duthoy S., Feltwell T., Fraser A., Hamlin N. Holroyd S., Hornsby T., Jagels K., Lacroix C., Maclean J., Moule S., Mupphy L., Oliver K., Quail M.A., Rajandream M.A., Rutherford K.M., Rutter S., Seeger K., Simon S., Simonnds M., Skelton J., Squares R., Squares S., Stevens K., Taylor K., Whitehead S., Woodward J.R., Barrell B.G.;
 REPEAT
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METAL
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                                                                                                                                                                                                                                                  InterPro;
Pfam; PF0(
                                                                                                                                                                                          Pfam; PF00226; DnaJ; 1.
Pfam; PF01556; DnaJ_C; 1.
Pfam; PF00684; DnaJ_CXCXGXG;
PRINTS; PR00625; DNAJPROTEIN.
SMART; SM00271; DnaJ; 1.
                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            I- FUNCTION: ACTS AS A CO-CHAPERONE. STIMULATES, JOINT THE ATPASE ACTIVITY OF DNAK (BY SIMILARITY).
I- COPACTOR: BINDS TWO ZINC IONS PER MONOMER (BY SIMIL SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
I- SUMLERITY: BELONGS TO THE DNAJ FAMILY.
I- SIMILARITY: CONTAINS 1 CR DOMAIN.
I- SIMILARITY: CONTAINS 1 CR DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=21128732; PubMed=11234002; Cole S.T., Eiglmeier K., Parkhill J., Wheeler P.R., Honore N., Garnier T., Mingall K Parkers
                                                                                    REPEAT
                                                                                                                                                    PROSITE; PS00636; DNAJ_1; FALSE_NEG.
PROSITE; PS50076; DNAJ_2; 1.
PROSITE; PS00637; DNAJ_CXXCXGXG; FALSE_NEG.
                                                                                                                                                                                                                                                                                                                                               EMBL; U00016; AAA17167.1; -. EMBL; AL583919; CAC30133.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Massive gene decay in the leprosy bacillus."; Nature 409:1007-1011(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mycobacterium leprae.
Bacteria; Firmicutes; Actinobacteria;
Bactinomycetales; Corynebacterineae; My
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chaperone protein dnaJ2.
DNAJ2 OR ML0625 OR B1937_F2_56.
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16-OCT-2001 (Rel. 40, L
16-OCT-2001 (Rel. 40, L
Chaperone protein dnaJ2
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Q49762;
                                                                                                                            Complete
                                                                                                                                          Chaperone;
                                                                                                                                                                                                                                                                                                       InterPro;
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                                                                                                                                                                                                                                                                                                                                    HSSP;
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                                                                                                                                                                                                                                                            IPR003095; DnaJ.
IPR002939; DnaJ_C.
IPR001305; DnaJ_CXXCXGXG.
IPR001623; DnaJ_N.
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                                                                                                                                         replication;
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J-DOMAIN.
GLY-RICH.
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ZINC 1 (BY SIMILARITY).
ZINC 1 (BY SIMILARITY).
                                                                                                                                         Heat shock;
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RESULT 39
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Best Local
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01-FEB-1994
15-JUL-1998
01-MAR-2002
                                                                                                                                                                                                                                                                                     Wilson R., Ainscough R., Anderson K., Baynes C., Berks M.,
Bonfield J., Burton J., Connell M., Copsey T., Coulson
Craxton M., Dear S., Du Z., Durbin R., Favello A., Fraser A.,
Fulton L., Gardner A., Green P., Hawkins T., Hillier L., Jier M.,
Johnston L., Jones M., Kershaw J., Kirsten J., Laisster N.,
Johnston L., Jones M., Kershaw J., Kirsten J., Laisster N.,
Latreille P., Lightning J., Lloyd C., Mortimore B., O'Callaghan M.,
Parsons J., Percy C., Rifken L., Roopra A., Saunders D., Shownkeer
Sims M., Smaldon N., Smith A., Smith M., Sonnhammer E., Staden R.,
Sulston J., Thierry-Mieg J., Thomas K., Vaudin M., Vaughan K.,
Waterston R., Watson A., Weinstock L., Wilkinson-Sproat J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          METAL
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                                              This SWISS-PROT entry is copyright. It is produced through a collable between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for contenting the statement is not removed.
                                                                                                                                    Submitted (NOV-1997) to the EMBL/GenBank/DDBJ databases. -!- SIMILARITY: STRONG, TO D1044.3. -!- SIMILARITY: CONTAINS 5 BPTI/KUNITZ INHIBITOR DOMAINS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis. NCBI_TaxID=6239;
                                                                                                                                                                                         REVISIONS.
STRAIN=BRISTOL N2;
                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-BRISTOL N2;
MEDLINE=94150718; PubMed=7906398;
                                     entities requires a
                                                                                                                                                                            Jones S.J.M.;
                                                                                                                                                                                                                                    Nature
                                                                                                                                                                                                                                                  elegans
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30; Conser
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                        s requires a license agreement (S
an email to license@isb-sib.ch).
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(Rel. 36, Last sequence update)
(Rel. 41, Last annotation updat)
1 316.1 kDa protein ZC84.1 in ch
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No.
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                                                                                                                                                                                                                                                                                                                                                                                                      Coulson A.,
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                                                                              outstation -
                                        .ch/announce/
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Best Local
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P28797;
01-DEC-1992
01-DEC-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-DEC-1992 (Rel. 24, Created)
01-DEC-1992 (Rel. 24, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Granulins precursor (Acrogranin) [Contains: G
Granulin 3; Granulin 4; Granulin 5; Granulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
SEQUENCE
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      between
the Euro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cavia porcellus (Guinea pig).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                    "Acrogranin, an acrosomal cysteine-rich glycoprotein, is the precursor of the growth-modulating peptides, granulins, and epithelins, and is expressed in somatic as well as male germ of the growth of the somatic as well as male germ of the control of the cystelle Cytokine-like Activity.

- PROCTION: GRANULINS HAVE POSSIBLE CYTOKINE-LIKE ACTIVITY.

- PLAY A ROLE IN INFLAMMATION, WOUND REPAIR, AND TISSUE REMCTIVITY: UBIQUITOUS.
                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-Testis;
MEDLINE-93228994; PubMed-8471244;
Baba T., Hoff H.B. III, Nemoto H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=10141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1141
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                                                                                                                                                                                                                                                                                                                                                                       Gerton G.L.;
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m; PF00011; Kunitz_BPTI; 5.
NTS; PR00759; BASICPTASE.
RT; SM00131; KU; 5.
RT; SM00289; WR1; 13.
                                                                                                                       PTM: GRANULINS ARE DISULFIDE
   SWISS-PROT entry is copyright. It is produced through a ceen the Swiss Institute of Bioinformatics and the EMBL European Bioinformatics Institute. There are no restrict
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PAQAPVSQPDAP-----
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; EGF-like.
; Kunitz_BPTI.
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BPTI/KUNITZ INHIBITOR 1.
BPTI/KUNITZ INHIBITOR 2.
BPTI/KUNITZ INHIBITOR 3.
BPTI/KUNITZ INHIBITOR 4.
BPTI/KUNITZ INHIBITOR 5.
BPTI/KUNITZ INHIBITOR 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -GHQ-----RKVVSWIDVYTRATCQPREVVVPLTVELMG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Euteleostomi;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            133
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                                     a collaboration -
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outstation -
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CATALYTIC ACTIVITY: ATP = 3',5'-cyclic AMP + diphosphate.
ENZYME REGULATION: INSENSIBLE TO CA(2+)/CALMODULIN. STIMULATED BY
THE G PROTEIN BETA & GAMMA SUBUNIT COMPLEX.

SUBCELLULAR LOCATION: Integral membrane protein.
TISSUE SPECIFICITY: WIDELY DISTRIBUTED.

DOMAIN: COMPOSED OF TWO HOMOLOGOUS DOMAINS.

SIMILARITY: BELONGS TO ADENYLYL CYCLASE CLASS-4/GUANYLYL CYCLASE
                                                                                                                                                            FUNCTION:
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, type IV (EC 4.6.1.1) (ATP pyrophosphate-lyase)
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SEQUENCE FROM N.A.
                                                           Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Musc
Ephydroidea; Drosophilidae; Drosophila.
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Pred. No. 9.4;
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Best Local
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                                                                                                                                                                                                                        HXB2_HUMAN STANDARD; PRT; 356 AA.

P14652; P17485; P10913;

O1-APR-1990 (Rel. 14, Created)
O1-APR-1990 (Rel. 14, Last sequence update)
O1-OCT-1996 (Rel. 34, Last annotation update)
HOMBODOX PYOTEN HOWEODOX PYOTEN HOX-B2 (HOX-2H) (HOX-2.8) (K8).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
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MEDLINE=90098876; PubMed=2574852; Acampora D., D'Esposito M., Faiella A.,
                                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pfam; PF00134; cyclin; SMART; SM00385; CYCLIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FlyBase; FBgn0025455; CycT. InterPro; IPR000553; Cyclin.
                                                         SEQUENCE FROM N.A.
                                                                                                                NCBI_TaxID=9606;
                                                                                                                                                                                                         Homo sapiens (Human).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  J. Biol
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FUNCTION: REGULATORY SUBUNIT OF THE CYCLIN-DEPENDENT KINASE PAIR FUNCTION: REGULATORY SUBUNIT OF THE CYCLIN-DEPENDENT KINASE PAIR (CDK9/CYCLIN T) COMPLEX, ALSO EALED POSITIVE TRANSCRIPTION ELONGATION FACTOR B (P-TEFB), WHICH IS PROPOSED TO FACILITATE THE TRANSITION FROM ABORTIVE TO PRODUCTION ELONGATION BY PHOSPHORYLATING THE CTD (CARBOXY-TERMINAL DOMAIN) OF THE LARGE SUBUNIT OF RNA POLYMERASE II (RNAP II).
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426 429
441 449
553 556
598 603
872 880
993 998
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                                                                                                                                               Chordata;
Primates;
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POLY-SER.
POLY-SER.
POLY-PRO.
POLY-GLN.
POLY-LYS.
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Pred. No. 9
                                                                                                                                                  Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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   Pannese M.,
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   Migliaccio
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InterPro; IPR001827; Antennapedia.
InterPro; IPR001356; Homeobox.
Pfam; PF00046; homeobox; I.
PRINTS; PR00025; ANTENNAPEDIA.
PRINTS; PR00024; HOMEOBOX.
PRINTS; SM00389; HOX; I.
SMART; SM00389; HOX; I.
PROSITE; PS00027; HOMEOBOX_1; 1.
PROSITE; PS00032; ANTENNAPEDIA; 1.
PROSITE; PS00032; HOMEOBOX_2; 1.
                                                                                                                                                                   HSSP; P14007;
TRANSFAC; T03323; -.
MIM; 142967; -.
TPR001827;
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[2]
                                                                                                                                                                                                                                                         EMBL;
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                                                                                                                                                                                                                                              PIR;
                                                                                                                                                                                                                                                                                                                                                          use by non-profit institutions as long as its content modified and this statement is not removed. Usage by ar
                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Vieille-Grosjean I., Huber P.;
"Transcription factor GATA-1 regulates human HOXB2
erythroid cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Boncinelli E., Acampora D., Pannese Gaudino G., Stornaluolo A., Cafiero "Organization of human class I homeo Genome 31:745-756(1989).
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                                                                                                                                                                                                                                                                                                                               or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                              entities
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=89378558; PubMed=2570724;
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                          Transcription
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kongsuwan K., Webb E., Housiaux P., Adams J.M.;
Expression of multiple homeobox genes within diverse mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                haemopoietic
                                        Homeobox; DNA-binding; Developmental protein; Nuclear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Biol. Chem. 270:4544-4550(1995). - FUNCTION: SEQUENCE-SPECIFIC TRA
                                                                                                                                                                                                                          BL; X16665; CAA34655.1;
BL; X16176; CAA34298.1;
BL; X14571; CAA32709.1;
BL; X78978; CAA55581.1;
R; S07542; WJHU2H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           5-9 WEEKS FROM CONCEPTION.
SIMILARITY: BELONGS TO THE ANTP FAMILY OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A DEVELOPMENTAL REGULATORY SYSTEM THAT PROVIDES CELL SPECIFIC POSITIONAL IDENTITIES ON THE ANTERIOR-POSIT SUBCELLULAR LOCATION: Nuclear.

DEVELOPMENTAL STAGE: EXPRESSED IN WHOLE EMBRYOS AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                PROBOSCIPEDIA SUBFAMILY.
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Acids Res. 17:10385-10402(1989).
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Ifiero M.,
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Faiella A.,
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16-OCT-2001 (Rel. 40, Last annotation update)
Semaphorin 3C precursor (Semaphorin 3C precu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SM3C_MOUSE
Q62181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for commodified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        and creates domains inhibitory for axonal extension.";
Neuron 14:941-948(1995).
-i- FUNCTION: INHIBITS AXONAL EXTENSION BY PROVIDING LOCAL SIGNATURE TO THE THEORY TERRITORIES INACCESSIBLE FOR GROWING AXONS.
-i- SUBCELLULAR LOCATION: Secreted (By similarity).
-i- DEVELOPMENTAL STAGE: EXPRESSED FROM DAY 10 IN THE EMBRYO.
-I- DEVELOPMENTAL STAGE: EXPRESSED FROM DAY 10 IN THE EMBRYO.
-I- DEVELOPMENTAL STAGE: EXPRESSED FROM DAY 10 IN THE EMBRYO.
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MEDLINE-95267431; PubMed-7748561;
Pusschel A.W., Adams R.H., Betz H.;
"Murine semaphorin D/collapsin is a member of a diverse gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
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Pfam; PF01403; Sema; 1
SMART; SM00409; IG; 1
SMART; SM00423; PSI; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -i- SIMILARITY: BELONGS TO THE SEMAPHORIN FAMILY.
-i- SIMILARITY: CONTAINS 1 SEMA DOMAIN.
-i- SIMILARITY: CONTAINS 1 IMMUNOGLOBULIN-LIKE C2-TYPE DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia;
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D7ACA0E3D5BEBFB9 CRC64;
   IG-LIKE C2-TYPE POLY-GLN.
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Nature 393:537-544(1998).
                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
STRAIN-CDC 1551 / Oshkosh;
Fleischmann R.D., Alland D., Eisen J.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YLOO_MYCTU STANDARD; PRT; 550 AA. Q10709; Q10709; O1-OCT-1996 (Rel. 34, Created) O1-OCT-1996 (Rel. 34, Last sequence update) 16-OCT-2001 (Rel. 40, Last annotation update) Hypothetical 58.9 kDa protein Rv2100 precursor. Rv2100 OR MT2100 OR MTCY49.40.

Mycobacterium tuberculosis.
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                                the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for conmodified and this statement is not removed.
                                                                                                                                  "Whole genome comparison of Mycobacterium tuberculosis clinical and laboratory strains.";
Submitted (APR-2001) to the EMBL/GenBank/DDBJ databases.
-i- SIMILARITY: STRONG, TO M.TUBERCULOSIS RV3776.
                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                 Fleischmann R.D., Alland D., Eisen J.A., Carpenter L., White O., Peterson J., Deby R., Dodson R., Gwinn M.L., Haft D., Hickey E., Kolonay J.F., Nelson W.C., Umayam L.A., Ermolaeva M.D., Salzberg Delcher A., Utterback T., Weidman J., Khouri H., Gill J., Mikula
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                    entities requires a license agreement
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SMART; SM00507; HNHC; 1.
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Tuberculist; Rv2100; -.
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                                                                 MGTVA---KQLVPSCVTVQR-----CGGCCPDDGLECVPTGQHQVRMQILMIRYPSSQLG
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ALAAGADHLACGCG-----
                     EMSL-EEHSQCECRPKKKDSAVKPD 136
                                                                                         LLDAALAEHAGAWGPLS---APKLEKAIDSWIDRYDPGALRRSRISARTRDLCIGDPDED
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## ALIGNMENTS

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127 KKKDSAVKP 135             132 KKDRAKENP 140	68 IVPSCYTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRP 126      :              :        :       :	10 LAALLQLAPAQAPVSQPDAPGHORKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQ 67             :       :                :	Query Match Best Local Similarity 43.4%; Score 271.5; DB 6; Length 189; Matches 56; Conservative 22; Mismatches 48; Indels 3; Gaps 2;	O95LQ4 PRELIMINARY; PRT; 189 AA. O95LQ4 O95LQ4; O1-DEC-2001 (TrEMBLrel. 19, Created) O1-DEC-2001 (TrEMBLrel. 19, Last sequence update) O1-DEC-2001 (TrEMBLrel. 19, Last annotation update) O1-DEC-2001 (TrEMBLrel. 19, Last annotation update) VASCULAR ENDOTHELIAL GROWTH FACTOR. Felis silvestris catus (Cat). Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis. NCBI_TaxID=9685; [1] SEQUENCE FROM N.A. Kodayashi Y., Yazawa M., Masuda K., Ohno K., Tsujimoto H.; "Nucleotide sequence and expression of the feline vascular endothelial growth factor."; "Nucleotide sequence and expression of the feline vascular endothelial submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases. EMBL; AB071947; BAB68520.1; EMBL; AB071947; BAB68520.1;

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Best Local S
Matches 57
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Q9QX39;
01-MAY-2000 (TrEMBLrel. 13, C
01-MAY-2000 (TrEMBLrel. 13, L
01-JUN-2001 (TrEMBLrel. 17, L
VASCULAR ENDOTHELIAL GROWTH F
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01-DEC-2001 (TrEMBLrel. 19, C
01-DEC-2001 (TrEMBLrel. 19, L
01-DEC-2001 (TrEMBLrel. 19, L
VASCULAR ENDOTHELIAL GROWTH F
                         PROSITE;
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Submitted (APR-2001) to the EMBL/GenBank/DDBJ (EMBL, AY035906; AAL07526.1; -.
SEQUENCE 190 AA; 22396 MW; 589374010441F37;
                                                                       InterPro; IPR000072; PDGF.
Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
                                                                                                                                                                     ehrenbergi: the role of vascular FEBS Lett. 452:133-140(1999). EMBL; AF186236; AAD56245.1; -. HSSP; P15692; 2VPF.
                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
MEDLINE-99313148; PubMed-10386577;
AVIVI A., Resnick M.B., Nevo E., Jc
"Adaptive hypoxic tolerance in the
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae;
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Marion S., Lee T.-C.;
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Mammalia; Eutheria; Rodentia;
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EKPSCYPLMRCAGCCNDEALECVPTSESNVTMQIMRIKPHQSQHIGEMSFLQHSRCECRP 131
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PS50278; PDGF_2; 1.
190 AA; 22488 MW;
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     2228383BC65F0BFE CRC64;
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he subterranean mole
endothelial growth 1
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Q96KJ0;
01-DEC-2001 (
         "A new isoform
                                                            TISSUE-KIDNEY;
                                                                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                            Homo sapiens (Human).
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EMBL; AY047581; AAK95847.1; ...
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Eukaryota; Metazoa;
Mammalia; Eutheria;
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1; Mismatches '
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"Cloning and mRNA expression of vascular endothelial ischemic retinas of Macaca fascicularis.";
Invest. Ophthalmol. Vis. Sci. 37:1334-1340(1996).
EMBL; S82167; AAB47118.1; -.
EMBL; S82167; AAB47118.1; -.
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PROCEEDINGS OF THE WORLD CONGRESS
Unknown Publisher (2001).
EMBL; AF430806; AAL27435.1; -.
SEQUENCE 191 AA; 22258 MW; DZE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
Cercopithecinae; Macaca.
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MEDLINE=96245208; PubMed=8641836;
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O1-AUG-1998 (TIEMBLIEL 07, Li
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Growth Factors 0:0-0(1998).
EMBL; AF071015; AAC23008.1; -.
HSSP; P15692; 1VGH.
InterPro; IPR000072; PDGF.
InterPro; IPR000072; PDGF.
Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00248; PDGF_1: 1.
PROSITE; PS00278; PDGF_2; 1.
SEQUENCE 190 AA; 22342 MW;
InterPro; IPR000072; PDGF.
Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF; 1; 1.
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Eukaryota; Metazoa; Chordata; Craniata; Vert
Actinopterygii; Neopterygii; Teleostei; Eute
Cypriniformes; Cyprinidae; Danio.
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Cheung C.Y., Brace R.A.;
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"Vascular endothelial growth
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Bovidae; Caprinae; Ovis.
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                                                                                  Brachydanio rerio (Zebrafish) (Zebra dan Eukaryota; Metazoa; Chordata; Craniata; Actinopterygii; Neopterygii; Teleostei; Cypriniformes; Cyprinidae; Danio. NCBI_TaxID-7955;
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  MEDCINE-98222600;
Liang D., Xu X.,
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Mammalia; Eutheria;
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                                              SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APVSQPDAPGHQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRPKK 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APMAEGGGQNH-HEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEYIFKPSCVPLMRCGG
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PubMed=9545518;
Chin A.J., Balasubramaniyan
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Primates;
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38.0%;
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Last sequence update)
Last annotation updat
FACTOR ISOFORM 165.
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Last sequence update)
Last annotation updat
FACTOR (FRAGMENT).
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Pred. No. 6.4e-21;
7; Mismatches 52;
                                                                                                                                                                                                                                                                                                                          PRT;
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                                                                                                                              Vertebrata; Euteleostomi;
Euteleostei; Ostariophysi
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.8e-21;
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165.
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N.V.,
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Best Local S
Matches 54
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Best Local Similarity
Matches 51; Conserv
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01-JAN-1998
01-DEC-2001
                                                                                                                                                 PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ProDom: PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
SEQUENCE 188 AA; 21756 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Weinberg E.S., Ge R.; "Cloning and characterization of vascular endothelial growth factor (VEGF) from zebrafish, Danio rerio."; Biochim. Biophys. Acta 1397:14-20(1998). EBBL; AF016244; AAC41274.1; -.
                                                                                                                                                                      InterPro; IPR000072; PDGF. Pfam; PF00341; PDGF; 1. ProDom; PD001629; PDGF; 1. SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                                              "Neovascularization of the Dev. Dyn. 0:0-0(1997). EMBL; AF008593; AAB63679.1;
                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; C
Amphibia; Batrachia;
Xenopodinae; Xenopus.
                                                                                                                                                                                                                                                                                                                        Xenopus laevis (African clawed frog).
Eukaryota; Metazoa; Chordata; Craniata;
Amphibia; Batrachia; Anura; Mesobatrach
                                                                                                                                                                                                                                                                                                                                                                                                                   042571;
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ZFIN; ZDB-GENE-990415-273; vegf.
InterPro; IPRO00072; PDGF.
Pfam; PF00341; PDGF; 1.
                                                                                                                                                                                                                    HSSP; P15692; 1VPP.
                                                                                                                                                                                                                                                                Cleaver O.,
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                                                                                                                                                                                                                                                                                                                                                                       VASCULAR ENDOTHELIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            124 CRPK-----KKDSAVKP 135
            66
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            KQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCEC
                                 LAVLLYIPHAQLSGAAP-MPGEGDHKPTEVVKFLKVYERSMCQVREILVDIFQEYPDEVE
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                                                                                          Similarity
                                                                                                                                      PS00249; PDGF_1; 1.
PS50278; PDGF_2; 1.
148 AA; 17234 MW;
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1 (TremBLrel. 19, I
NDOTHELIAL GROWTH )
                                                                                                                                                                                                                                                               Tonissen K.F.,
                                                                               Conservative
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= :
                                                                                          35.2%;
43.2%;
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19,
                                                                                                                                                                                                                                                      Saha M.S., Krieg P.A.;
Xenopus embryo.";
                                                                               21;
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                                                                                                                                                                                                                                                                                                                          Mesobatrachia;
                                                                                                                                                                                                                                                                                                                                                                                                       Created)
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Pred. No. 1.8e
29; Mismatches
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Pred.
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                                                                                          253; DB 13;
No. 2.4e-20;
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L.8e-20;
hes 51;
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042572;
01-JAN-1998
01-JAN-1998
01-DEC-2001
                                                                                                                                                                                                                                                     Q9BDP7;
01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
VASCULAR ENDOTHELIAL GROWTH FACTOR (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cleaver O., Tonissen K.F., 1
"Neovascularization of the 1
"Neovascularization of the 2
Dev. Dyn. 0:0-0(1997).
EMBL; AF008594; AAB63680.1;
HSSP; P15692; 1VGH.
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SEQUENCE FROM N.A.
Hazzard T.M., Nayak N.R., Jia Y., S
Hazzard T.M., Nayak N.R., Jia Y., S
"Rhesus macaque VEGF mRNA sequence.
Submitted (JAN-2001) to the EMBL/Ge
EMBL; AF339737; AAK26379.1; -.
                                                                                                                                                                                          Macaca mulatta (Rhesus macaque).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Amphibia; Batrachia; Xenopodinae; Xenopodinae;
                                                                                                                                                                                                                                                                                                                                                                                                  Q9BDP7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS00249; PDGF_1; 1. PROSITE; PS50278; PDGF_2; 1. SEQUENCE 194 AA; 22672 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR000072; PDGF
Pfam; PF00341; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Xenopus laevis (African clawed frog).
Eukaryota; Metazoa; Chordata; Craniat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VASCULAR ENDOTHELIAL GROWTH
                                                                                                                                                 NCBI_TaxID=9544;
                                                                                                                                                                           Cercopithecinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ProDom;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          125
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10 LAALLQLAPAQAPVSQPDAPGH----QRKVVSWIDVYTRATCQPREVVVPLTVELMGTVA 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YIFKPSCVPLMRCAGCCNDESLECVPTECYNITMQIMKIKPHISQHIMDMSFQQHSQCEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RPKKE 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RPKKE 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RPKKK 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YIFKPSCVPLMRCAGCCNDESLECVPTECYNITMQIMKIKPHISQHIMDMSFQQHSQCEC 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RPKKK 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCEC 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LAVLLYIPHAQLSGAAP-MPGEGDHKPTEVVKFLKVYERSMCQVREILVDIFQEYPDEVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PD001629; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (TremBLrel. 05, Created)
(TremBLrel. 05, Last sequence up
(TremBLrel. 19, Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                           Macaca.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Anura;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               35.2%;
43.2%;
                                                          Jia Y., Stouffer R.L.; sequence.":
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Saha M.S., Krieg P.A.;
Xenopus embryo.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mesobatrachia;
                         EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Craniata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              85D7BEC7CEFEF17E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               253; DB 13;
No. 3.2e-20;
                                                                                                                                                                                                                                                                                                                                                                                                  126 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    194
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Å
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                                                                                                                                                                                                                                                                                              update)
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; Pipidae;
                                                                                                                                                                                                                      Euteleostomi;
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62

GLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRPKK

128

61

**AEGGQKPHEVMKFMDVYQRSFCRPIETLVDIFQEYPDEIEFIFKPSCVPLMRCGGCCNDE** 

SLECVPTEEFNITMQIMRIKPHQSQHIGEMSFLQHNKCECRPKK 105

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Best Local s
Matches 47
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Best Local
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01-OCT-2000
01-DEC-2001
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SEQUENCE
                                                                                                                                                                                          Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
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SEQUENCE
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PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                                                                             Submitted (MAR-2000) to the EMBL; AF250375; AAF75258.1; HSSP; P15692; 1VPP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ovis aries (Sheep).
Eukaryota; Metazoa; Chordata;
Mammalla; Eutheria; Cetartioda
Bovidae; Caprinae; Ovis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR000072;
Pfam; PF00341; PDGF;
                                                                                                                                                                                                                                                                                     Pfam; PF00341; PDGF;
                                                                                                                                                                                                                                                                                                                                                                                                 cells."
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Zheng J., Tsoi S.C., Magness R.R.;
"Growth factor expression in ovine f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q9MZB1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ProDom;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9940;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VASCULAR ENDOTHELIAL GROWTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q9MZB1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HSSP; P15692; 2VPF
                                                                                                                                                                                                                                                                                                       InterPro; IPR000072; PDGF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   125
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LAALLQLAPAQAPVSQPDAPG---HQRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAK 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LALLLYLHHAKWSQAAHMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEY
    APGHQR--KVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDD
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                                             l Similarity
47; Conserv
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52; Conser
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126 AA;
                                                                                                                                                         118
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                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                         AA;
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; 14599 !
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Cetartiodactyla;
Ovis.
                                                                                                                                                         13931 MW;
                                                            34.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 34.8%;
42.6%;
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                                             21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21;
                                             Score 246.5;
Pred. No. 9.7e
21; Mismatches
                                                                                                                                                                                                                                                                                                                                                                        EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FACTOR (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                       ovine fetal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Craniata; Vertebrata; Euteleostomi;
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                                                                                                                                                         757DC53AA56378A6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             250; DB 6;
No. 4.3e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ruminantia; Pecora;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         118
                                             7e-20;
ies 33;
                                                                                                                                                                                                                                                                                                                                                                                                                     placental artery
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                                                                                       DB 6;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             45;
                                                                                                                                                                                                                                                                                                                                                                            databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 126
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                                                                                     Length
                                               Indels
                                                                                          118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bovoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                       endothelial
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                                          Gaps
    85
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Best Local S
Matches 44
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Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
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01-MAR-2001
01-MAR-2001
01-DEC-2001
SMART; SI PROSITE;
                                                                                                                            Ramesh G., Kondaiah P., Seshagiri P.B.;

"Regulation of expression of transforming growth
steroid hormone in the hamster uterus.";
Submitted (AUG-2000) to the EMBL/GenBank/DDBJ dat
EMBL; AF297627; AAG16241.1; -.
HSSP: p15603. 1000
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01-MAR-2001 (TrEMBLrel. 16,
01-MAR-2001 (TrEMBLrel. 16,
01-DEC-2001 (TrEMBLrel. 19,
                                                                                                                                                                                                                                                                                                                                                                                                                    01-MAR-2001 (TremBLrel. 16, Created)
01-MAR-2001 (TremBLrel. 16, Last sequence update)
01-DEC-2001 (TremBLrel. 19, Last annotation updat-
VASCULAR ENDOTHELIAL GROWTH FACTOR VEGF (FRAGMENT
                                                                                                                                                                                                                                                                                                                                   Mesocricetus
                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                         Mesocricetus auratus (Golden hamster).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q9ERL6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Callithrix jacchus (Common marmoset)
Eukaryota; Metazoa; Chordata; Crania
Mammalia; Eutheria; Primates; Platyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VEGF
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                                                                     InterPro; IPR000072; PDGF, Pfam; PF00341; PDGF; 1.
                                                                                                                       HSSP;
                                                                                                                                                                                                                                                                                                    NCBI_TaxID=10036;
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                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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                                                                                                                     P15692; 1VPP.
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                                             PD001629; PDGF; 1.
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124 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
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                     PDGF; 1.
PDGF_1;
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; 14548 MW;
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Rodentia;
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Last annotation updat
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Pred.
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                                                                                                                                                                                                                                                                                                                                                 Sciurognathi;
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No. 2.7
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Matches 42
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01-DEC-2001
01-DEC-2001
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SEQUENCE
                        01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
VASCULAR ENDOTHELIAL GROWTH FACTOR PRECURSOR.
Bothrops insularis (Island jararaca) (Queimada jararaca).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q90x23
Q90x23;
                                                                                        Q90X24;
01-DEC-2001
                                                                                                                Q90X24
                                                                                                                                                                                                                                                                                                                                                   CHAIN
                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=21523945; PubMed=11517227;
Junqueira de Azevedo I.L.M., Farsky S.H.P., Oliveira M.L.S., H
Junqueira de Azevedo I.L.M., Farsky S.H.P., Oliveira M.L.S., H
"MOJecular Cloning and Expression of a Functional Snake Venom
Endothelium Growth Factor (VEGF) from the Bothrops insularis P
Viper. A New Member of the VEGF Family of Proteins.";
J. Biol. Chem. 276:39836-39842(2001).
EMBL; AY033152; AAK52103.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-DEC-2001 (TrEMBLrel. 19, Last sequenc 01-DEC-2001 (TrEMBLrel. 19, Last annotat VASCULAR ENDOTHELIAL GROWTH FACTOR PRECU Bothrops jararaca (Jararaca). Craniata; Eukaryota; Metazoa; Chordata; Craniata; Lepidosauria; Squamata; Scleroglossa; Se Viperidae; Crotalinae; Bothrops.
                Lepidosauria; Squamata;
                                                                                                                                                                                                                                                                                                                                         SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=8724;
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                                                                                                                                          18
                                                                                                                                                                                                                                          QRKVVSWIDVYTRATCQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVP 91
                                                                                                                                                                            TGKRSVGREIMRLSPHKGTSEKEVMQFTEHTDCECRPR
                                                                                                                                                                                                  TGQHQVRMQILMI--RYPSSQLGEMSLEEHSQCECRPK
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142 /
                                                                                                                                                                                                                                                                                                                                       146 AA;
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                                                                                        (TrEMBLrel.
                                                                                                                  PRELIMINARY;
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16621 MW;
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19,
                Scleroglossa;
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Last annotation updat
FACTOR PRECURSOR.
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Pred. No. 2.5e
15; Mismatches
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VASCULAR ENDOTHELIAL GROWTH
; 451EEF514EA9408E CRC64;
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                                                                                                                  PRT;
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               Serpentes; Colubroidea;
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Viperidae; Crotalinae;

Bothrops.

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Pfam; PF00341; PDGF; 1.
ProDm; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
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Q9N1S2;
Q1-OCT-2000
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                                                                                                                                                                                                                                                                                                                                             capreolus capreolus (Roe deer).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Cervoidee
Cervidae; Odoccoileinae; Capreolus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE-VENOM GLAND;

MEDLINE-21523945; Pubmed-11517227;

Junqueira de Azevedo I.L.M., Farsky S.H.P., Oliveira M.L.S., Ho P.L.;

"Molecular Cloning and Expression of a Functional Snake Venom Vascular Endothelium Growth Factor (VEGF) from the Bothrops insularis Pit Viper. A New Member of the VEGF Family of Proteins.";

J. Biol. Chem. 276:39836-39842(2001).
                                                                                                        NON_TER
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SEQUENCE
                                                                                                                                                                                                               capreolus).";
Anim. Reprod. Sci. 64:65-75(2000).
EMBL; AF152593; AAF73232.1; -.
HSSP; P15692; 2VPF.
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                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. TISSUE=TESTIS;
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                                                                                                                                                                                                                                                              MEDLINE-20532861; PubMed-11078967; Wagener A., Blottner S., Goritz F., "Detection of growth factors in the
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           PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMIR-YPSSQLGEMSLEEHSQCECRPKK 128
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VASCULAR ENDOTHELIAL GROW

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                    HSSP; P15692; 2VPF.
InterPFO; IPR000072; PGF.
Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
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ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
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                                                                                                                                                  low-frequency-stimulated rabbit muscle.
Am. J. Physiol. 274:0810-0818(1998).
EMBL; AF022179; AGC15469.1; -.
HSSP; P15692; 2VPF.
                                                                                                                                                                                                                                                                                    STRAIN-NEW ZEALAND WHITE; TISSUE-SKELETAL MEDLINE-98191144; PubMed-9530113; Skorjanc D. Jaschinski F. Heine G., Pett "Sequential increases in capillarization a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Oryctolagus cuniculus (Rabbit).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JAN-1998 (Tremblrel. 05, 01-JAN-1998 (Tremblrel. 05, 01-JUN-2001 (Tremblrel. 17, VASCULAR ENDOTHELIAL GROWTH
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pec
Cervidae; Odocoileinae; Capreolus.
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Best Local
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBO J. 18:363-374(1999).

EMBI; AR106020; AAD03735.1; --

HSSP; P15692; 1VPP,

InterPro; IPR000072; PDGF.

Pfam; PP00341; PDGF; 1.

PTODom; PD001629; PDGF; 1.

SMART; SM00141; PDGF; 1.
                                                                                                                      070123
070123;
01-AUG-1998
01-AUG-1998
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE;
PROSITE;
SEQUENCE
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NON_TER
NON_TER
SEQUENCE
Mus musculus (Mouse)
Eukaryota; Metazoa; (
Mammalia; Eutheria; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-99107753; PubMed-9889193;
Meyer M., Clauss M., Lepple-Wienhues A., Waltenberger J.,
Augustin H.G., Ziche M., Lanz C., Buettner M., Rziha H.J., Dehio
"A novel vascular endothelial growth factor encoded by orf virus,
VEGF-E, mediates angiogenesis via signalling through VEGFR-2 (KDR
not VEGFR-1 (FIt-1) receptor tyrosine kinases.";
                                                                                                    VEGF115.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Orf virus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VASCULAR ENDOTHELIAL GROWTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NAY-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=10258;
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                                                                                                                                                                                                                                                                                                                                                                                           VRMQILMIRYPSSQ-LGEMSLEEHSQCECRP 126
                                                                                                                                                                                                                                                                                                                                              VTMQLMGASVSGGNGMQHLSFVEHKKCDCKP
                                                                                                                                                                                                                                                                                                                                                                                                                                           TWSEVFENSGCKPRPMVFRVHDEHPELTSQRFNPPCVTLMRCGGCCNDESLECVPTEEAN 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SWIDVYTRATCOPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQ 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PSCVPLVRCGGCCNDESLECVPTEEFNVTMQIMRIKPHQGQHIGEMSFLQHNKCECRPK 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PS00249; PDGF_1; 1.
PS50278; PDGF_2; 1.
132 AA; 14763 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
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                                                                                                                        (TrEMBLrel.) (TrEMBLrel.) (TrEMBLrel.)
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(TrEMBLrel.
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                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PDGF_2;
  Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8720 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25.9%;
36.3%;
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55.9%;
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17,
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Last sequence up
Last annotation
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Last annotation updat
FACTOR HOMOLOG VEGF-E
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Pred. No. 4.9e-13;
0; Mismatches 37
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Pred. No. 9.6e-14;
0; Mismatches 15
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Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                        PRT;
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VEGF-E.
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  Murinae; Mus
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Query Match
Best Local Similarity 39.4
Matches 37; Conservative
InterPro; IPR000072; PDGF.
Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
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ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF 1; 1.
PROSITE; PS50278; PDGF 2; 1.
SEQUENCE 141 AA; 15550 MW;
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01-NOV-1998
01-NOV-1998
01-DEC-2001
                                                                                                                        endothelial growth factor in the penis Biol. Reprod. 60:398-404(1999). EMBL, AF080594; ARC36708.1; -. HSSP; P15692; 1VPP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=95101726; PubMed=7803491; Sugihara T., Kaul S.C., Mitsui Y., Wadhwa R.; "Enhanced expression of multiple forms of VEGF is spontaneous immortalization of murine fibroblasts. Biochim. Biophys. Acta 1224:365-370(1994).
                                                                                                                                                                                                                                                                                                                                                                    Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-NOV-1998 (TrEMBLrel. 08, 01-NOV-1998 (TrEMBLrel. 08, 01-DEC-2001 (TrEMBLrel. 19, VASCULAR ENDOTHELIAL GROWTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=98112857; PubMed=9446618;
Sugihara T., Wadhwa R., Kaul S.C.,
"A novel alternatively spliced form
                                                                                                                                                                                                                           Burchardt M., Burchardt T., Chen M.W., Buttyan R., Shabsigh R.;
                                                                                                                                                                                                                                                                    STRAIN-SPRAGUE-DAWLEY; TISSUE-PENIS; MEDLINE-99115228; PubMed-9916007;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MGD; MGI:103178; Vegf.
InterPro; IPR000072; P
Pfam; PF00341; PDGF; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; U50279; AAC05442.1; HSSP; P15692; 1VPP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      growth factor, VEGF 115.";
J. Biol. Chem. 273:3033-3038(1998).
                                                                                                                                                                                       "Expression of messenger ribonucleic acid splice variants
endothelial growth factor in the penis of adult rats and l
                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10116;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               68 LYPSCYTYORCGGCCPDDGLECYPTGQHQYRMQI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FKPSCVPLMRCAGCCNDEALECVPTSESNITMQV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LALLLYLHHAKWSQAAPTTEGEQKSHEVIKFMDVYQRSYCRPIETLVDIIQEYPDEIEYI 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Last sequence update)
Last annotation update)
FACTOR A 110 (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Created)
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Pred.
                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata;
Sciurognathi; Muridae;
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No. 7
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m of murine vascular endothelial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          110
                                                                                                                                                                                                                                               Shabsigh A.,
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.7e-13;
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                                                                                                                                                                                                                                                                                                                                                                        Muridae;
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INOUE K., KAWADE Y., KOdama T

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Submitted (NOV-1998) to the EI

EMBL; AB020216; BAA36949.1;

HSSP; P15692; 2VPF.
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01-MAY-1999 (TrEMBLrel. 10,
01-MAY-1999 (TrEMBLrel. 10,
01-JUN-2001 (TrEMBLrel. 17,
                                                                                                                                                                                                                            VASCUARM.
VEGE.
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Oryctolagus cuniculus (Rabbit).
Oryctolagus cuniculus (Rabbit).
Oryctolagus cuniculus (Rabbit).
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Kirkin V., Mazitschek R., Krishnan J., Steften A., Mazitschek R., Mazitschek R., Krishnan J., Steften A., Mazitschek R., Mazitschek R., Mazitschek R., Krishnan J., Mazitschek R.,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  097500
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Eur. J. Blochem. 0:0-0(2001).
EMBL: AV032728; ARV65008.1; -
SEQUENCE 326 AA; 37106 MW; D7CAEE
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Mammalia; Eutheria;
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chi; Muridae; Murinae; Rat
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01-JUN-1998
01-DEC-2001
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EMBL; Y15837; CAA75799.1; -.
HSSP; P15692; IVPP.
                                                                                                                                                                                                                                                                                                                                                                                                             Eichmann A., Corbel C., Jaffredo
Alitalo K., Le Douarin N.M.;
"Avian VEGF-C: cloning, embryonic
of the differentiation of VEGFR2
                                                                                                                                                                                                                                                       Pfam; PF03128; CXCXC; 6.
Pfam; PF00341; PDGF; 1.
PRINTS; PR00438; GFCYSKNOT
ProDom; PD001629; PDGF; 1.
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Eukaryota; Metazoa; Chordata; Craniata;
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Pfam; PF00341; PDGF;
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SMART; SM00141; PDGF;
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InterPro; IPR002400; GF_cys
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l Similarity 47.5%;
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Glyco_hormone.
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Last annotation update)
FACTOR C PRECURSOR.
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Pred. No. 2.4e
l6; Mismatches
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2.4e-08;
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01-DEC-2001
01-DEC-2001
01-DEC-2001
                                                                                                                                                                                          STRAIN-SPRAGUE-DAWLEY;
Kirkin V., Mazitschek R., Krishnan J., Steffen A., Waltenberger J.,
Pepper M.S., Glannis A., Sleeman J.P.;
"Characterization of indollinones which specifically inhibit VEGF-C-and
VEGF-D-induced activation of VEGFR-3 but not VEGFR-2.";
EUR. J. Blochem. 0:0-0(2001).
EMBL; AV037729; AAK96009.1; -
SEQUENCE 415 AA; 46397 MW; 1EB677F5B260A525 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Brugla malayi stimulates VEGF-C, a growth factor specific Impulate representation of the control of the EMBL/GenBank/DDBJ databases.

EMBL; AF432867; AAL28127.1; -.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=10116;
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                                      APGHORKVVSWIDVYTRAT-COPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDG 86
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Last
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                                                                                                        Score 147;
Pred. No. 4
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Sciurognathi;
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                                                                                    Mismatches
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annotation update)
OR C (FRAGMENT).
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ismatches 51;
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Best Local (
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                                                                                                                                                                      Q9BLX1
Q9BLX1;
01-JUN-2001
01-JUN-2001
01-DEC-2001
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SIGNAL
CHAIN
SEQUENCE
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Q9XS50;
01-NOV-1999
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Eukaryota; Metazoa; Chordata; Crania
Mammalia; Eutheria; Cetartiodactyla;
               Eukaryota; Metazoa; Arthropoda; Trac
Pterygota; Neoptera; Endopterygota;
Ephydroidea; Drosophilldae; Drosophi
NCBI_TaxID-7227;
                                                                                                                                 PVF1
                                                                                 Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Trac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF03128; CXCXC; 5. Pfam; PF00341; PDGF; 1. ProDom; PD001629; PDGF; 1. SMART; SM00141; PDGF; 1.
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01-DEC-2001
                                                                                                                                                   PDGF/VEGF
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(TrEMBLrel. 17, Last sequence up
(TrEMBLrel. 19, Last annotation
ACTOR-1 PRECURSOR.
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(TrEMBLrel. 19,
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Last annotation updat
FACTOR C PRECURSOR.
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Pred. No. 1.9e
5; Mismatches
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Insecta;

171

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Muscomorpha;

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MEDLINE=20044783; PubMed=10575000;
Yonekura H., Sakurai S., Liu X., Migita H., Wang H., Yamagishi S.
Nomura M., Abedin M.J., Unoki H., Yamamoto Y., Yamamoto H.;
"Placenta growth factor and vascular endothelial growth factor B (expression in microvascular endothelial cells and percyttes.
Inplication in autocrine and paracrine regulation of angiogenesis J. Biol. Chem. 274:35172-35178(1999).
EMBL; AB004275; BAA77687.1; -.
HSSP; P15692; 1VPP.
InterPro; IPR000173; CXCXC.
InterPro; IPR000173; CXCXC.
APGHQRKVVSWIDVYTRAT-CQPREVVVPLTVELMGTVAKQLVPSCVTVQRCGGCCPDDG
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InterPro; IPR004153; CXCXC.
InterPro; IPR000072; PDGF.
Pfam; PF03128; CXCXC; 3.
Pfam; PF03128; CXCXC; 3.
Pfam; PF001541; PDGF; 1.
PROSITE; PS001641; PDGF; 1.
SMART; SM00141; PDGF; 1.
SMART; SM00141; PDGF; 1.
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01-DEC-2001
01-DEC-2001
01-DEC-2001
                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.

STRAIN-Y, CN BW SP;

STRAIN-Y, CN BW SP;

Stapleton M., Brokstein P., Hong L., Agbayani A., Carlson J.,

Stapleton M., Brokstein P., Hong L., Agbayani A., Carlson J.,

Champe M., Chavez C., Dorsett V., Farfan D., Frise E., George R.,

Gonzalez M., Guarin H., Li P., Liao G., Miranda A., Mungall C.J.,

Nunco J., Pacleb J., Paragas V., Park S., Phouanenavong S., Wan K.

Yu C., Lewis S.E., Rubin G.M., Celniker S.;

Submitted (AUG-2001) to the EMBL/GenBank/DDBJ databases.

EMBL; AY051751; AAK93175.1; -.

EMBL; AY051751; AAK93175.1; -.

EMBL; AY051751; AAK93175.1; -.

EMBL; AY051751; AAK93175.1; -.
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CG7103.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
NCBI_TaxID=7227;
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SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        142 PPAEDEANYYYMPACTRISRCNGCCGSTLISCQPTEVEQVQLRVRKVDRAATSGRRPFTI
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  VELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMI----
                                                      TPLTLPLSVSAELTNVTADYDVSGEMPSSKENFKRSIMKSTVRNATPASCSPQPTIVELK 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VELMGTVAKQLVPSCVTVQRCGGCCPDDGLECVPTGQHQVRMQILMI-----RYPSSQ 110
                                                                                                        SPLLRRLLLAALLQLAPAQAPVS - - QPDAPGHQRKVV - - SWIDVYTRATCQPREVVVPLT
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39; Conservative
                                                                                                                                                                 39;
                                                                                                                                                                                       Similarity
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                                                                                                                                                               Conservative
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Last sequence update)
Last annotation update)
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                                                                                                                                                                                  Score 138; DB 5;
Pred. No. 3e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 138; DB 5;
Pred. No. 2.9e-07;
9; Mismatches 61
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PDGF/VEGF FACTOR-1.

DE7771E7B2BD5EDD CRC64;
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                                                                                                                                                               Mismatches
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                                                                                                                                                                 61;
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                                                                                                                                                                                                             Length 325
                                                                                                                                                               Indels
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---RYPSSQ 110
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RA Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Borkova D., Botchan M.R., Bouck J., Brostein P., Brottier P.,
RA Burtis K.C., busam D.A., Butler H., Cadieu E., Center A., Chandra I.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Harris M.J., Evista C.C., Ferraz C., Ferriera S., Fleischmann W.,
RA Harris N.J., Harvey D., Helman T.J., Hernandez J.R., Houck J.,
RA Kimmel B.E., Kodira C.D., Kraft C., Kravitz S., Kulp D., Lai Z.,
RA Liu X., Mattei B., McIntosh T.C., McLeod M.P., McPherson D.,
RA Merkulov G., Milshina N.V., Mobarry C., Morris J., Moshrefi A.,
RA Melson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,
RA Munit S.M., Moy M., Murphy B., Murphy L., Muzny D.M., Nelson D.L.,
RA Melson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,
RA Shier E., Sradling A.C., Stapleton M., Skupski M.P., Smith T.,
RA Shier E., Sradling A.C., Stapleton M., Skupski M.P., Smith T.,
RA Shier E., Sradling A.C., Stapleton M., Skupski M.P., Smith T.,
RA Yellsen S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A.,
RA Yellsen S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A.,
RA Yellsen S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A.,
RA Kimmel B.E., Kong M. S., Stapleton M., 
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01-DEC-2001 (TrEMBLrel. 19,
CG7103 PROTEIN.
CG7103.
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Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Eukaryota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X., Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D., Wan K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G., Wander B., Batter B.G., Andrews-Pfannkoch C., Baldwin D., Abril J.F., Agbayani A., An H.-J., Andrews-Pfannkoch C., Baldwin D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D., Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F., George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
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01-MAY-2000
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS50078; PDGF 2; 1.
SEQUENCE 301 AA; 33013 MW;
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                                                                                             EMBL; AE003510; AAF48892.2; FlyBase; FBgn0030964; Pvf1. InterPro; IPR000072; PDGF. Pfam; PF00341; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=20196006; PubMed=10731132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=7227;
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Last annotation update)
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  4C45D988AAC9A5A9 CRC64;
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RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Salto T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Salto R.,
RA Salto T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Salto R.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA Kuchl P., Lewis S., Matsuo Y., Nikaldo I., Pesole G., Quackenbush J.,
RA Kuchl P., Lewis S., Matsuo Y., Nikaldo I., Pesole G., Quackenbush J.,
RA Kuchl P., Lewis S., Matsuo Y., Nikaldo I., Pesole G., Quackenbush J.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Lyons P., Marchionni L., Mashiman M., Hume D.A., Kamiya M., Lee N.H.,
RA Lyons P., Marchionni L., Mashiman T., Shibata Y., Storch K.-F.,
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
Suzuki H., Toyo-oka K., Wang K.H., Weltz C., Wilming L.,
RA Manshawa M., Satoki H., Weltz C., Wilming L.,
Ra Manshawa M., Marchia Y., Weltz C., Wilming L.,
Ra Manshawa M., Marchia Y., Storch K.-F.,
  Query Match
Best Local S
Matches 31
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Best Local
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01-JUN-2001
01-DEC-2001
                                                                                                                                                                                                            MGD; MGI:97527; Pdgfa.
InterPro; IPR000072; PDGF.
Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
                                                                                                                                                                                                                                                                                                     "Functional annotation of a Nature 409:885-690(2001). EMBL; AK017169; BAB30622.1; HSSP; P01127; 1PDG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN=C57BL/6J; TISSUE=OVARY, AND UTERUS; MEDLINE=21085660; PubMed=11217851;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                             PROSITE; PS00249; PDGF_1; 1. PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                           SMART; SM00141; PDGF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
11 DAYS PREGNANT ADULT FEMALE OVARY AND UTERUS CDUA,
ENRICHED LIBRARY, CLONE:5033413018, FULL INSERT SEQUI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q9CU96
                                                                                                                                                                                                                                                                                                                                                                                      Hayashizaki
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    . Similarity 31; Conser
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38; Conservative
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                                                                                                           13551 MW;
                   17.7%;
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    20;
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                                                                                                                                                                                                                                                                                                                                                                full-length mouse
Score 127; DB 11;
Pred. No. 1:7e-06;
20; Mismatches 36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 134.5; DB 5
Pred. No. 6.9e-07;
                                                                                                                                                                                                                                                                                                                                                                                                          Hasegawa Y.,
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Sciurognathi; Muridae;
                                                                                                       00B514B7C6E050D6
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                                                                                                         CRC64;
                                     Length 118;
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12;
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Best Local
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Q29613;
                   Nucleic [2]
SEQUENCE
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SEQUENCE FROM N.A.

MEDLINE=87146463; PubMed=3822831;
MEDLINE=87146463; PubMed=3822831;
MEDLINE=87146463; PubMed=3822831;
Man den Ouweland A.M.W., van Groningen J.J.M., Schalken
Van Neck H.W., Bloemers P.J., Van de Ven W.J.M.;
"Genetic organization of the c-sis transcription unit.";
Nucleic Acids Res. 15:959-970(1987).
                                                                                                                                                                                                                                01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence up
01-JUN-2001 (TrEMBLrel. 17, Last annotation
C-SIS ONCOGENE (PLATELET-DERIVED GROWTH FACT
                                                                                                                                                                                              Felis silvestris catus (Cat).
Eukaryota; Metazoa; Chordata;
                                                                                                                                                            NCBI_TaxID=9685
                                                                                                                                                                               Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PS00249; PDGF_1; PROSITE; PS50278; PDGF_2; SEQUENCE 196 AA; 22280
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EMBL; BC003817; AAHO:
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01-DEC-2001
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Mammalia; Eutheria;
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MGD; MGI:97527; Pdc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=10090;
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1-21
                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
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Rodentia;
                                                                                                                                                                             Carnivora;
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31.3%;
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17, Last
19, Last
19, FACTOR,
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Pred. No. 2.
                                                                                                                                                                             Craniata; Vertebrata;
; Fissipedia; Felidae;
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Sciurognathi; Muridae;
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                                                                                     Schalken J.A.,
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Felis.
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Murinae; Mus
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01-DEC-2001 (
01-DEC-2001 (
                                       Signal.
SIGNAL
                                                                                               SEQUENCE FROM N.A.

MEDILINE=21363439; PubMed=11470524;

Horiuchi H., Inoue T., Furusawa S., Matsuda H.;

"Characterization and expression of three forms o chicken platelet-derived growth factor-A chain.";

Gene 272:181-190(2001).
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                                                                               EMBL;
                                                                                                                                                                                                                                                                                                 Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata;
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ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
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InterPro; IPR000072;
Pfam; PF00341; PDGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL;
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Claesen C.A.A., Bloemers
                    CHAIN
                                                                                                                                                                                                                                                                                                                                           PDGF-A (L).
                                                                                                                                                                                                                                                                                                                                                                PLATELET-DERIVED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q90WK2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleic Acids Res. 14:765-778(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Structure and nucleotide sequence of the 5' region of the human feline c-sis proto-oncogenes.";
  SEQUENCE
                                                                                                                                                                                                                                       NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                 Archosauria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=86120370;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MIR-----YPSSQLGEMSLEEHSQCEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; X06301; CAA29623.1
; X06302; CAA29623.1
; X03494; CAA27210.1
; M25358; AAA30817.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QVRKIEIVRKRPVFKKATVTLEDHLACKC 184
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X06300;
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M25355; AAA30817.1;
                                                                             AB031022;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         X06298; CAA29623.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           X06297; CAA29623.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
  87
211
                                                                                                                                                                                                                                                                                                                                                     (TremBLrel. 19, Created)
(TremBLrel. 19, Last sequence update)
(TremBLrel. 19, Last annotation update)
RIVED GROWTH FACTOR A CHAIN LONG FORM PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                 Aves; Neognathae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAA30817.1;
AAA30817.1;
AAA30817.1;
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  AA;
                                                                             BAB62541.1;
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34.8%;
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PDGF.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 127; DB
Pred. No. 3.2e
18; Mismatches
POTENTIAL.
PDGF-A LONG FORM.
D32DE8E92BE43B08
                                                                                                                                                                                                                                                                              Craniata; Vertebrata; Eute; Galliformes; Phasianidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDD19FBA1A04C1E6 CRC64;
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3.2e-06;
nes 28;
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  CRC64;
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                                                                                                                                       encoding
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Query Match

17.48;

Score

125;

ВB

13;

Length

211;

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RESULT
Q15354
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Q90W23
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Best Local
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Matches
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01-DEC-2001
01-DEC-2001
                                                                                                                               01-NOV-1996
01-NOV-1996
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                Signal.
SIGNAL
CHAIN
                                                                                                                                                                   Q15354
                                                                                                                                                                                                                                                                                                                                                                                              STRAIR HHITE LEGHRON;
Horiuchi H., Inoue T., Furusawa S.,
"Cloning and characterization of a c
factor-B chain cDNA.";
                                                                        Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=9606;
                                                                                                                                                           Q15354;
                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Archosauria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gallus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PDGF-B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PLATELET-DERIVED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q90W23;
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                                                                                                              ORF 2.
                                                                                                                                                                                                                                                                                                                                                                                       Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9031;
                                                                                                    Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                            EMBL; AB031025;
                                                                                                                                                                                                                                                       102
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                                                                                                                                                                                                                  159
                                                                                                                                                                                                                                  103 MI-----RYPSSQLGEMSLEEHSQCEC----RPKKKDS
                                                                                                                                                                                                                                                                       45 ATCOPREVVVPLTVELMGTVAKQLV--PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL
                                                                                                                                                                                                                                                                                                   Local
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                                                                                                                       2 PROTEIN
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                                                                                                                                                                                                                                                                                          Similarity 30; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gallus
                                                                                                                                                                                                                                                                                                                                                                             (AUG-1999) to the 
31025; BAB64307.1;
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88
251 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Metazoa;
                                                                                                                    6 (TrEMBLrel. 01
5 (TrEMBLrel. 01
1 (TrEMBLrel. 19
3IN (FRAGMENT).
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L (TrEMBLrel.
L (TrEMBLrel.
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etazoa; Chordata; C:
Aves; Neognathae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                     PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GROWTH
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196
28515
                                                                                  Chordata;
Primates;
                                                                                                                                                                                                                                                                                                 17.4%;
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01,
19,
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         , Jansen H.J., de Jong A., Bl
species is transcribed from
the code for an alternative
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Last sequence update)
Last annotation updat
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                                                                                                                                                                                                                                                                                                  Score 125;
Pred. No. 6.
                                                                                                                                                                                                                                                                                                                                       POTENTIAL.
PDGF-B.
; 52B096C938C4298A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; Eute; Galliformes; Phasianidae;
                                                                                  Craniata; Vertebrata; Catarrhini; Hominidae
                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            annotation update)
CHAIN PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                        , Matsuda
chicken p
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ches 36;
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les 34;
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                                                                                   Hominidae;
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                                                                                                                               update)
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     m a promoter in e pDGF B-l:
                            Bloemers
                                                                                            Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KKKDSAVKP 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Phasianinae;
                                                                                                                                                                                                                                                       -QIRVRHV
                                                                                                                                                                                                                                                                                           16;
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                                                                                                                                                                                                                                                                                                                                                                                                        growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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RESULT
Q90WK1
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AC Q90
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Best Loc
Matches
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Best Local S
Matches 31
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Nucleic Acids Res. 23:2815-2822(1995).
EMBL; X83705; CAAS8679.1; -.
HSSP; P01127; 1PDG.
InterPro; IPRO00072; PDGF.
Pfam: PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS002749; PDGF_1; 1.
PROSITE; PS0278; PDGF_2; 1.
NON_TER 185 20. 20774 MS; 207655550
                                                                                                                                                                                                                              Burgess J.;
Submitted (DEC-1999) to the EMB
Submitted (DEC-1999) to the EMB
EMBL; Z81010; CAB62507.1; -.
HSSP; P01127; IPDG:
InterPro; IPR000072; PDGF:
Pfam; PF00341; PDGF; 1.
PRODOm; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF 1; 1.
PROSITE; PS00249; PDGF 2; 1.
SEQUENCE 226 AA; 25502 MW;
Q90WK1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q9UF23;
                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
CN10C3.1 (PLATELET-DERIVED GROWTH FACTOR BETA POLYPEPTIDE
SARCOMA VIRAL (V-SIS) ONCOGENE HOMOLOG) (ISOFORM 2)).
                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                           Home sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                       PDGFB
                                                                        137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   137 OVRKIEIVRKKPIFKKATVTLEDHLACKC 165
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                                    41
                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                40
                                                                                                                                                                                             Match
                                                                        QVRKIEIVRKKPIFKKATVTLEDHLACKC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCQPREVVVPLTVELMG-TVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL 102
                                                                                              MIR----YPSSQLGEMSLEEHSQCEC 124
                                                                                                                     AECKTRTEVFEISRRLIDRINANFLVWPPCVEVQRCSGCCNNRNVQCRPT--
                                                                                                                                            ATCOPREVVVPLTVELMG-TVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQIL 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MIR-----YPSSQLGEMSLEEHSQCEC 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AECKTRTEVFEISRRLIDRTNANFLVWPPCVEVQRCSGCCNNRNVQCRPT---QVQLRPV 136
                                                                                                                                                                     l Similarity
31; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity 34.8
31; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         185 AA;
             PRELIMINARY;
                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                  Chordata;
Primates;
                                                                                                                                                                             17.18;
34.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20774 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17;
                                                                                                                                                                                                                                                                                                                                         EMBL/GenBank/DDBJ
                                                                                                                                                                     Score 123; DB
Pred. No. 9.5e
l7; Mismatches
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             PRT;
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                                                                                                                                                               DB *,
9.5e-06;
29;
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7.6e-06;
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MEDLIND=21363439; PubMed=11470524;

Horiuchi H., Inoue T., Furusawa S., Matsuda H.;

"Characterization and expression of three forms
"Characterization and expression of three forms
                                                                                                                                                                                                                                                                                                   PRECURSOR.
PDGF-A (S1
                                                                                                                                                       Horiuchi H., Inoue T., Furusawa S., Matsuc "Characterization and expression of three chicken platelet-derived growth factor-A c Gene 272:181-190(2001).
                                                                                                                                                                                                                                                            Gallus galius (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutel
Archosauria; Aves; Neognathae; Galliformes; Phasianidae;
                                                                                                                                             EMBL; AB031021; BAB62540.1;
                                                                                                                                                                                                                                                                                                                         01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
PLATELET-DERIVED GROWTH FACTOR A CHAIN SHORT FORM T
                                                                                                                                                                                                                                                                                                                                                            Q90WK3;
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                    Q90WK3
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Eukaryota; Metazoa; Chordata;
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01-DEC-2001 (TrembLrel.
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PLATELET DERIVED GROWTH
                                                                                               SEQUENCE
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Gallus.
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                                                                                                                                                                                                                                         NCBI_TaxID=9031;
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                                                                                                                                                                                                                                                                                                                                                                                                                                             153
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              45
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                45
                                                                                                                                                                                                                                                                                                                                                                                                          42
ATCQPREVV--VPLTVELMGTVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCQPREVV--VPLTVELMGTVAKQLV-PSCVTVQRCGGCCPDDGLECVPTGQHQVRMQI 101
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nilarity 30.9%;
Conservative 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                etazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
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    FACTOR A CHAIN SHORT FORM T

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                                       19;
                                    Score 122; DB 13;
Pred. No. 1.1e-05;
3; Mismatches 38
                                                                                              POTENTIAL.

PDGF-A SHORT FORM TYPE 1.

77ED143E8C94F4C2 CRC64;
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Pred. No. 1e-05;
9; Mismatches
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PDGF-A SHORT FORM TYPE
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tor-A chain.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 194;
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                                    Indels
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Pfam; PF00341; PDGF; 1.
ProDom; PD001629; PDGF; 1.
SMART; SM00141; PDGF; 1.
PROSITE; PS00249; PDGF_1; 1.
PROSITE; PS50278; PDGF_2; 1.
                                                                                                                                                                                                                                                                              UI-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
PLATELET-DERIVED GROWTH FACTOR A-CHAIN.
Gallus gallus (Chicken)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             O9WVO7;
01-NOV-1999 (TrEMBLrel. 12,
01-NOV-1999 (TrEMBLrel. 17,
01-JUN-2001 (TrEMBLrel. 17,
PDGF A (FRAGMENT).
                                                                                                                    SEQUENCE FROM N.A. MEDLINE=20302546; PubMed=10842055;
                                                                                                                                                                                                                                                             Gallus gallus (Chicken).
Eukaryota; Metazoa; Chor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "APA hamsters PDGF A partial Submitted (JUN-1999) to the EMBL; AB028637; BAA78768.1; HSSP; P01127; 1PDG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
STRAIN-APA; TISSUE-KIDNEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mesocricetus auratus (Golden hamster)
Eukaryota; Metazoa; Chordata; Craniat
Mammalia; Eutheria; Rodentia; Sciurog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9WVQ7
                                                                                                                                                                                                                                         Archosauria;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Q9PUF7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nishida E.;
in vivo and in vitro.";
mech. Dev. 94:13-24(2000).
EMBL; AF188841; AAF01459.1;
                                                      "Platelet-derived growth factor A modulates in wive and in witre.":
                                                                                                Ataliotis P.;
                                                                                                                                                                                          NCBI_TaxID=9031;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           112
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AVCKTRTVIYEIPRS-QADPTSANFLIWPPCVEVKRCTGCCNTSSVKCQPSRVHHRSVKV
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                                                                                                                                                                                                                                       Neognathae;
                                                                                                                                                                                                                                       Chordata; Craniata; Vertebrata; Euteleostomi;
Neognathae; Galliformes; Phasianidae; Phasiani
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bred. No. 1e-05;
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Sciurognathi;
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Eukaryota; Metazoa; Chordata; Craniata; Ver
Actinopterygii; Neopterygii; Teleostei; Eut
Cypriniformes; Cyprinidae; Danio.
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138
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